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The Curriculum: Learning and Teaching

Reviews the literature for the three-year period since the issuance of Volume XV, No. 3, June 1945. Earlier research related to this topic was reviewed in Volume 1, No. 1; Volume 4, No. 2; Volume 7, No. 2; Volume 12, No. 3; and Volume 15, No. 3.

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This issue of the REVIEW was prepared by the Committee on the Curriculum: Learning and Teaching

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FOREWORD

THIS is the first issue of the REVIEW to appear under the direction of the newly appointed editors. The highly efficient editorial program administered by J. Cayce Morrison, formerly chairman of the editorial board, and by the associate editor, Arnold E. Joyal, has been interrupted by the decision of these gentlemen that five years of planning and editing the REVIEW is a sufficient term of service. They are deserving of the sincere thanks of the Association and of all educators for their work on the outstanding numbers which have appeared under their active editorship.

The chairman of the Editorial Board will follow the lead of his predecessors in organizing and advising with committees engaged in summarizing and interpreting the research in the fields designated in the publication schedule. There will be general adherence to all policies formulated by the Board. With the approval of the Board an assistant editor, Albert N. Hieronymus, has been appointed to handle many of the details of preparing the manuscripts for the printer. As previously, thru correspondence and in annual or called meetings, the Editorial Board formulates policies, approves membership of reviewing committees, plans and approves the schedule of topics and fields for review in each three-year cycle.

The change in editorship will in no way modify the principles which determine the usefulness of the REVIEW. The REVIEW is looked upon as a continuous supplement to the history of education. It is a primary tool for research workers, teachers, and administrators. As such it must be up to date, critical, and factually correct. The purpose of the REVIEW will continue to be to select, summarize, synthesize, interpret, and evaluate current research in education and in related fields, and to present an integrated, useful report, organized by areas of research and practical interest.

The high standards set by our predecessors on the Editorial Board will be difficult to maintain. It will be impossible without the complete and continuous cooperation of the entire membership of the Association. Please bring to our attention research which might otherwise escape the consideration of committees and contributors. Your suggestions for the improvement of the REVIEW will receive the most careful consideration.

This issue represents the seventh number dealing specifically or in closely related manner with problems of the curriculum since the appearance of Number 1, Volume 1, "The Curriculum," in January 1931. It should bring us up to date on the important thought and practices affecting curriculum construction.

HARRY A. GREENE
Chairman of the Editorial Board

INTRODUCTION

THIS issue of the *REVIEW* covers research in the curriculum for the calendar years 1945, 1946, and 1947. The last two previous issues of the *REVIEW* concerned mainly with the curriculum were the June numbers of 1942 and 1945 (Volume 12, Number 3; Volume 15, Number 3) entitled "General Aspects of Instruction: Learning, Teaching, and the Curriculum." The statement of the title of this issue, "The Curriculum: Learning and Teaching," was chosen in an attempt to highlight the essential curriculum problems of philosophical foundations, content, methods, and materials as related to the general problems of instruction.

Originally the present issue was organized in four sections:

- Curriculum: Foundations
- Curriculum: Status and Description
- Curriculum: Methods and Materials
- Curriculum: Change and improvement

As the work of the committee progressed, it seemed desirable to divide the third section into two chapters, one dealing with early childhood education (thru Grade VI), and the other with the upper-grade levels. Later a discussion of library resources was added as a final chapter.

An examination of the research covered by the period of this issue makes it clear that the war and its aftermath resulted in the interruption of the research activities of many individuals and institutions. At the same time there is evidence that the war stimulated new interests in instructional equipment and technics which have great value to educators in general, and which on that account must be evaluated here for their contributions to the curriculum. The critical directness of a nation at war resulted in giving serious attention to the need for curriculum planning and to the processes of curriculum change. There is extensive research on these phases of curriculum. Obtaining needed curriculum improvement is largely a matter of motivation and group dynamics. Curriculum workers are beginning to review the research in these related areas. The research for 1945-1947 also discloses the presence and influence of new curriculum emphases and content such as aviation education, intercultural programs, and mental hygiene.

Studies in special curriculum areas are not included in this issue unless such research has general implications. Other issues of the *REVIEW* are planned to cover the research in certain of the individual subject fields.

WILLIAM E. YOUNG
Chairman

CHAPTER I

Curriculum: Foundations

WILLIAM H. BRISTOW

MODERN curriculum foundations rest on the synthesis of many disciplines. An adequate treatment of foundations therefore would be broad in scope. It would rest heavily upon the research reported in former issues of the REVIEW, especially those dealing with such factors as growth and development, citizenship education, and social foundations. This chapter summarizes merely the pertinent research and some of the general literature to show trends and highlight important developments in the field of the curriculum during the calendar years 1945-1947. Many of the studies reported here are comprehensive in scope, synthesizing philosophical, sociological, and psychological concepts which must underlie any consideration of curriculum foundations. Others, it is believed, are sufficiently specific to indicate clearly the philosophy and scientific background of curriculum research and revision.

Rugg (39) undertook a synthesis of key concepts in the four foundations of American education which he delineates as: new biopsychology—the study of man, his nature, and behavior; new sociology—an emerging science of society and culture; new esthetics—the study of man's expression and appreciation; new ethics—the emerging moral codes and the formulation of first principles of ethical conduct for the industrial society. Rugg maintained that modern creative thought could assemble and organize a program to guide youth and to develop an education to serve modern man. Knowledge of the culture is sufficiently clear to design the content of such an education. Man and his behavior are sufficiently known to organize its teaching. Expressive experience has been lived to insure a high order of esthetics. The first principles of conduct are sufficiently clear to solve the problem of freedom and control. These foundations provide the makings of a great education but they have never been organized in a way to be focused directly on the problems of man. Counts (13) suggested that education is a most important factor in achieving social democracy.

Altho limiting themselves more sharply than Rugg, two authors writing during the period sought to reassess educational plans and traditions. Butts (6) covered the span of history from primitive times; Edwards and Richey (16) devoted their efforts to America. Both are concerned with education and the culture, and the recognition of education as a social force.

Dewey (14) pointed out that altho scientific methods influence the economic conditions under which men live, they do not do much to determine the moral, the humane, ends served by engrossing practical conditions, the actual state of ends and values. The social subjects today are in much the same state as physical subjects three hundred years ago. Dewey further

recommended the use of the same kind of systematic and comprehensive criticism of current methods and habits which a few hundred years ago set going the revolution in the field of physical knowledge.

The crisis in American Education and the democratic values, which must prevail if education in our time is to make itself felt for good, were well described in a number of the *Survey Graphic* (3). Special emphasis was placed on the problems which must be met if freedom is to be maintained. The effects of different ideologies on thought control, as well as on all aspects of life, were presented in two House Documents; one on communism (19) and another on Fascism (20). Emphases in instruction under communism were reported as follows: "Soviet education emphasizes love of country, the glorification of Russia in history, science, the equality of peoples, socialism, and military power. The entire educational program expresses Soviet domestic and foreign policy and is directed toward the goal of overtaking and surpassing 'the most advanced capitalistic countries'" (19:116). The American emphasis on individual instruction and freedom of teaching was contrasted sharply with Soviet emphasis on a unified system and indoctrination in communism. Fascism was represented as a psychological, not a rational force: "It is built upon the support of the masses as they are directed under a system of *führership*. The philosophy is one of faith, belief, regulation, uniformity, and constraint. Fascist thought is national-mindedness to the *nth* degree based on a political foundation. Its sole consideration is the success and survival of the fascist state, to that end everything must be surrendered—objectivity, logic, consistency, and even truth itself" (20:35).

Hook (23) concluded that the fundamental problem of our culture is to defend and extend the democratic heritage of rights and freedoms in an industrial economy that can provide security for all. This security, on a plane commensurate with human dignity, has not been achieved in an unplanned economy nor has it been achieved in a planned economy under a dictatorship. Even the political freedom without economic security is defective and precarious, economic security without political democracy is impossible.

The President's Committee on Civil Rights (36) documented the ways in which the fundamental principles of human rights are being achieved, treated the progress made, and the difficulties and problems confronting contemporary society which must be faced if the ideals expressed in our great documents are to be made a reality for all people.

A report of the Educational Policies Commission on elementary education (31) pointed out that both good and efficient schools are needed. Good schools rest on values that are good. Efficient schools should promote these values. Hitler's schools were efficient, but not good in terms of American values. Another Educational Policies Commission report (32), first issued in three separate sections, should be mentioned here since it brings together significant material coordinated as one study.

Many educators have had an opportunity to view first-hand the effect of other ideologies upon the life and character of other people. While concerned that democracy shall have an opportunity to serve thruout the world, there is equal concern that American education and policy, which is the beneficiary of a forward-looking social system, shall operate to remove the stresses which are threats to democracy itself. Strebel (43) proposed a nationwide program of community and educational planning which will transcend the four walls of the school and attract basic values of men in the interest of greater social democracy.

In reviewing world trends Toynbee (45) pointed out that there is a tendency toward standardization and uniformity. This tendency is the correlative and opposite of the tendency toward differentiation and diversity which has been found to be the mark of the growth stage of civilizations.

A broad problem affecting educational foundations is seen in the control of atomic energy. To Compton (11) atomic energy is "just one more step along the path of technological progress" but he states that the society that is adapted for survival in the modern world is one in which an increasing degree of cooperation occurs between diverse groups spread over large areas; that technology requires an ever increasing training and education, as well as a concern that one's activities shall contribute to the welfare of society. Willits (46) pointed out that the main questions with respect to atomic power are those of its impact on war and peace, on power, on politics, and on morals. To implement the concept that atomic energy must be understood and controlled, a bulletin of the University of Illinois (21) brings together basic materials for the orientation of teachers in this area in the form of a resource unit, synthesizing the objectives and experiences basic to understanding atomic energy in an atomic age.

Intercultural relations have been of major concern in establishing foundations. The Ninth Yearbook of the John Dewey Society (27) represented the survival of intergroup tensions, with their accompanying prejudices and hurtful discriminations as a serious threat in our modern world. A series of principles for intercultural education were proposed: that all pupils shall live well together . . . that freedom in a democracy is always limited by the requirement of equal regard for others . . . that pupil groups shall increasingly learn and use the method of conferring . . . that the pupils shall really grow . . . that the pupils shall learn more and more to act on the basis of thinking . . . that each pupil shall build the invariable habit of acting on the best that he has found . . . that each group shall come to know and respect the cultural contributions of other groups . . . that pupils shall understand and appreciate the composite character of the American population . . . that teachers and older pupils shall study the various historic causes and supporting rationalizations of group prejudices, and study the problems of race and the evidenece against racism. Brameld (5) studied minority problems in public schools.

He documented the gap between theory and practice, again emphasizing the need for realism in considering foundations. He found that where peoples of various cultures and races freely and genuinely associate, tensions, difficulties, and confusions dissolve. Where such association is not present, prejudice and conflict grow like a disease. Allport (2) found that controlling group prejudice calls for a united attack by every responsible agency and every responsible scientist, moralist, industrialist, educator, housing authority, legislator; by civil service, the cinema, the stage, the radio; by community leaders, psychopathologist, social scientists; and by philanthropic and educational foundations.

The report of the Harvard Committee (22), while purporting to deal primarily with the college level has also important implications for the high school. The report represented the elective system as a divisive force, resulting in compartmentalization of learning and standardization of products. More emphasis on general education at both high school and college levels was suggested as a means of securing unity, and of leading the student to develop desirable traits of mind and behavior.

Caswell and others (9), while finding much that was commendable in American high schools, also found that much needs to be done if the high school is to meet the needs of modern youth. Social goals suggested for secondary education include: developing citizens competent and willing to make every needed sacrifice to make democracy work for all men . . . developing a consuming desire for that kind of public behavior toward other nations which produces peaceful international relationships . . . teaching that we have adequate resources to meet the economic and social needs of all our people and that these resources must be used for this purpose . . . directing the attention of youth to the fact that successful living depends upon adequate personal and public health and upon physical fitness for employment and social and family life . . . showing that America is committed to an economic system of private enterprise and that this system must be healthy, but that government regulation is required to insure its serving the public good . . . pointing out that all men must work to produce for individual and group welfare and that opportunities for work must always be available . . . giving each young person the knowledge he needs to improve his social and economic status to the limit of his capacities.

The social obligation of higher education in America was set forth in the report of the President's Commission on Higher Education (48). General education concerns itself with the fullest possible development of the motives, attitudes, and habits that will enable the student to inform himself and think of himself thruout life. It stresses (a) the importance of being informed, of basic decisions, actions, and opinions on accurate facts; (b) knowledge of where and how to acquire information; and (c) ability to appraise, relate, and integrate facts in order to form valid judgments. General education cannot be achieved by prescribing any

single pattern of courses. Altho seeking common goals for all, general education approaches these goals thru different subjectmatter and experience. Such approaches must be as varied as the differences among students.

Continued emphasis on growth and development is shown thru this period in the publication of such books as *Manual of Child Study* (8). Thruout this book it is clear that physical and mental development are interdependent and interrelated, and that maturation is the end of all elaborate processes of change.

Under the direction of Louis Rath (37), workers reported studies in which significant progress had been made by pupils when teachers were led to a deeper understanding of pupil needs and ways of meeting these needs thru teaching operations. Needs identified included belonging, achievement, economic security, freedom from fear, love and affection, freedom from guilt, personal integrity in sharing, understanding, and knowledge.

Young (47) found the use of motion pictures, recordings, and short stories in a program of teacher education for high-school teachers of home economics was successful in developing a sensitivity of teachers to the technics of interpersonal relations, both to those they use and to those that are used on them. She concluded that further improvement in the development and use of such materials would advance the effectiveness of public education. Dirks (15) studying home economics situations, found that comparatively few of the students seemed to have succeeded in establishing friendships and gaining recognition adequate to meet what were termed the basic needs of acceptance and recognition. A few students were consistently accorded a large enough number of rejections to show that definite problems of social and emotional adjustment existed. In view of the large amounts of "unknownness" which many in the group rated, she reported that it was difficult to see how opportunity to establish very satisfying interpersonal relationships could have existed for them within these classrooms.

Fultz (18) reported that a direct attack upon the problem of improving learning thru an in-service teacher-education program which emphasized human relations tended to result in significant increases in social acceptance, reading skills, and intelligence, as measured by psychological tests.

Understanding children is a primary means of approaching the curriculum. Of the many reports dealing with studies made by a local staff, two are cited. A Teacher Education Commission report (35) drew together the experience of many collaborations, but was concerned primarily with the experience and work of one staff. It was found that teachers who understand children think of behavior as caused, accept children emotionally, recognize that each child is unique, know the common developmental tasks which children must meet as well as the scientific forces that regulate human growth, development, motivation, learning and behavior, and use

this understanding in making judgments about any particular boy or girl. This study contains many important findings.

A study of the faculty of the Ohio University School Staff (33) resulted in a recording of the characteristics of children at various age levels as a basis for curriculum development and guidance. The general categories used in this study were: Maintaining Personal Health and Promoting a Healthful Living, Achieving and Maintaining a Sense of Security, Developing and Maintaining a Sense of Achievement, and Developing and Maintaining Ever-Widening and Deepening Interests and Appreciations.

Two reports appearing during this period were stimulated by the work of Adelbert Ames, Jr. of the Dartmouth Eye Institute. In a series of demonstrations Ames showed that a perception is only a prognosis and that things around us have no meaning except as we ascribe meaning to them. As a result of these experiments, Kelley (26) concludes that things about us are nothing until we make them something, and then they are what we make them. What we make them can only be determined by what we are and where we have been (our prior experience). Things about us are only clues. Reality, therefore, comes from what we make of these clues, received by our sense organs, *when we act upon them*. External objects lack reality in their own right. They attain importance only when assigned characteristics, distance, and position by an experiencing organism. Cantril (7), in further exploring the concepts proposed by Ames, pointed out that we can only test the reliability of the prognosis a perception gives us by means of some action. Not to act will mean that the perception and the value judgment inherent in it becomes atrophied. This would account, in part, for the ineffectiveness of "abstract" learning, since it does not provide potentialities for purposeful action either for the group or for the individual. The nature of perception can only be understood by tying perception to action, to purpose, and to value-judgment. On the basis of evidence a perception is defined as an implicit awareness of the probable consequences an action might have with respect to carrying out some purpose that may have value. In any perception an enormous number of factors is unconsciously involved, one of the most important of which is the frame of reference from past experience. The perceptions of men that are composed in large part of abstractions are likely to be dangerous since they are divorced from concreteness, and therefore are inadequate guides for purposeful action. Discrimination and real wisdom cannot come from abstractions alone, but only from concrete experience which may be aided by abstraction.

Jersild and associates (24) have presented the principles of child development as applied to the curriculum, drawing upon their own research and the work of others. The point was made that choices must be made as to what children shall learn. These choices at any level should be in keeping with the child's capacities and potentialities. The efficient way to proceed is to relate education to the child's own growth. While educational

programs cannot be absolutely geared to child development, educators must be alert for new insights into the resources of child nature and on guard against cultural pressures which are against the best interests of the child.

The place of developmental tasks of adolescence in education was reported by Corey (12) as the required lessons which boys and girls *must* learn to adjust to their culture. For middle-class American young people the more important of these are: coming to terms with their own bodies . . . learning new relationships . . . achieving adult social and economic status . . . and acquiring self-confidence and a system of values. The point was made that developmental tasks should have an important place in determining the direction of curriculum and curriculum change.

Following the research previously reported by Stoddard (41), Schmidt (40) reported a study of 254 Chicago boys and girls between the ages of twelve and fourteen years, all of whom originally had been classified as feeble-minded. The group ranged in IQ's from twenty-seven to sixty-nine, with a mean IQ of fifty-two. Instructional method was characterized by: (a) group planning; (b) group experience; (c) in-school reproduction of situational experiences; and (d) the use of the creative and manipulative arts. A variety of educational materials was used, including field trips, radio broadcasts, films, and stereopticon slides as well as books, magazines, and newspapers. Construction and art materials were used in correlative hand-work and in the crafts. Evaluation of progress was made during the three-year experimental period and five years after the pupils had left the center. Twenty-seven percent of the experimental group completed a regular four-year high-school course. Intelligence score changes over the eight-year period ranged from a four-point drop to a seventy-one point gain. Most of the experimental group made satisfactory life adjustments. A control group made little gain in IQ, and life and vocational adjustments were less satisfactory.

Attitudes toward teaching and teachers have an increasingly important place in foundations. Barzun (4) concluded that teaching is not a lost art but the regard for it is a lost tradition. He observes that tomorrow's problem will not be to get teachers even tho, at this moment, that appears to be one of the great needs of the schools. What will be needed, rather, is to recognize the good teachers and not to discourage them before they have an opportunity to establish themselves.

Peterson (34) found that in education the foundation is the teacher, and the best possible curriculum will suffer fatally in the hands of a dull and unimaginative one.

Alberty (1) analyzed the strengths and weaknesses of the subject-centered and the experience-centered curriculums, and resolved the dualism thru an emphasis upon needs as flowing from the interaction of the individual and his environment. When these needs are viewed as a result of

the interaction of individual and social forces, a basis is established for the core curriculum.

The staff of the Horace Mann-Lincoln Institute of School Experimentation (42) proposed a theory of curriculum development which utilizes a knowledge of how children grow and mature in American society with its democratic orientation and direction. The major categories selected were: health, intellectual power, responsibility for moral choices, esthetic expression and appreciation, person-to-person relationships, group membership, intergroup relationships, technological resources, and economic-social-political structure and forces. Each of these situations was analyzed on four bases: early childhood, later childhood, youth, and adulthood; and suggestions were made for the operation of the curriculum.

Reporting cooperative approaches to research and study, Mort (30) made a synthesis of basic concepts underlying school administration, many of which are basic to the curriculum. One section was devoted to a description of "best practices," as identified in the studies of the Metropolitan School Study Council. This technic was used in the belief that abstractly stated purposes are often meaningless unless there is some indication of the means by which they are achieved. It was further maintained that most people interpret purposes in terms of the best devices which they know. The study and research program of the Metropolitan School Study Council was therefore directed toward the creation of instruments and the carrying out of research which would develop insight and create desire for better practices.

The question of religious instruction in the schools is in the forefront again. Morrison (29) and Kantonen (25) presented the view of Protestantism which, in general, is that of the separation of State and Church. Rogers (38) proposed that the moral and ethical values of religion are an essential part of training for successful living and they should be part of a liberal education. Thayer (44) found that secularization is consistent with democracy, altho he agreed that there is greater need for ethical, moral, and spiritual training. Fearson (17) outlined the ways in which educational theory in America does not satisfy Catholic ideals—these ideals are documented in the report of the Commission on American Citizenship (10). Moehlman (28) analyzed the shortcomings of the Church, and pointed out that the Christian faith includes only a minority of the people of the world. He saw the emergence of a new synthesis based on the scientific spirit and the democratic faith as essential for worldwide religious cooperation.

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CHAPTER II

Curriculum: Status and Description

HARL R. DOUGLASS, HENRY J. OTTO, and STEPHEN ROMINE

REVIEW of current literature and of responses solicited from teacher-training institutions thruout the United States reveals no great amount of careful, fundamental research on this topic during the past three years. Emphasis here is placed upon studies having research merit. Also included are some books, reports, and studies which, altho not always based on formal research, do indicate principles, activities, and trends which may be useful to persons interested in the general status of the curriculum for the period of 1945 to 1947, inclusive.

This does not suggest that the curriculum is static. Emphasis is placed upon practice. Some reference to theory from time to time is helpful, however, in comparing what was being done with what might have been done. Of primary concern here is the organization and the content of the curriculum as shown by the research of the period covered by this issue of the REVIEW.

I. The Elementary-School Curriculum

Surveys of Status and Trends

Rouse (82, 84, 85) provided a survey of the elementary-school curriculum in Texas which covered: (a) the evolution of the elementary-school curriculum in Texas, (b) the proposed elementary-school curriculum as set forth in the state curriculum revision program of 1934-1938, and (c) the present status of the curriculum in use today in Texas elementary schools. Altho a reorganization and synthesis emphasizing five core areas based on the dominant themes of language, society, security, individual development, and science was set forth in the 1934-1938 program and reemphasized in subsequent bulletins in 1939, 1943, and 1945, the basic pattern which prevailed in 1946 was that of subjects taught in isolation on a daily assignment basis.

Another study by Rouse (83) compared curriculum practices in departmentalized and nondepartmentalized elementary schools. A checklist of 137 items was used in an observation, interview, and questionnaire study. Only fourteen of the ninety-four differences found between the two groups of schools were statistically significant; seven favored each group, but only one of the differences favoring the departmental group was approved by specialists in elementary education, whereas all seven of the differences favoring the nondepartmental group were approved by such specialists. Otto's (70, 72) comparison of practices in 286 public elementary schools and forty-six campus demonstration schools revealed these two groups

of schools to be very similar except that standardized achievement tests and departmentalized teaching were more extensive in the campus schools.

A nationwide survey by Otto (71, 72) included many aspects of the instructional program. Forty-five different subject titles were reported by the 532 schools included in the study. The prevailing pattern of curriculum organization was that of "subjects taught in isolation." The trend toward integration of related subjects was indicated by the fact that only about 50 percent of the schools reported history and geography as separate subjects and nearly one-fourth of the schools reported "social studies." Integration was further evident in a small percentage of schools in which various combinations of reading, spelling, writing, and literature had been made and a still smaller number of schools in which some phases of language arts had been merged with social studies or science. Forty-two different types of co-curriculum activities were reported, only one of which was found in more than 50 percent of the schools, only three in more than 40 percent of the schools, and only six in more than 10 percent of the schools. The prominence attained by health and science was significant. Carter's questionnaire study (18) involving 153 urban and ninety-two rural teachers in Ohio showed that conservation education had gained prominence in teachers' thinking and practice.

In a survey of curriculum improvement since 1925, Rice (77) identified three approaches; namely, (a) those directed toward the creation of courses of study in *subject fields*; (b) those directed toward the development of areas of study and experiences centering around the *major functions of living*; and (c) those directed toward the development of areas of study and experiences arising from the *problems, interests, and concerns of youth*. Concern for curriculum improvement has led to concern for "ways of working" in bringing about curriculum revision which, in turn, has led to greater emphasis upon the major functions of living and the needs of youth. Rice described six significant effects which this trend has had upon the nature of the curriculum.

Since 1942 the Alfred P. Sloan Foundation has been cooperating with selected members of the American Association of Teachers Colleges to implement the training of prospective teachers in applied economics. By 1945 ten teachers colleges were participating in the program (30). Reports of progress and accomplishments of this program are not yet available to any extensive degree.

The old argument about planned and unplanned curriculums appears to be resolving itself into a sensible solution. Articles by Herrick (43) and Hand (38) have done much to clarify the problem. Herrick maintained that every curriculum approach today should consider, at some point, the importance of both children and subjectmatter. Hand insisted that unless the school is to be permitted to function as an irresponsible institution in reference to what is to be learned, it must have a planned curriculum.

Curriculum Content, Procedures, and Appraisal

Children's interests continue to hold a prominent place as a clue to curriculum planning. Heisler (41) found no significant difference between the achievement of comic and noncomic book readers among 600 pupils in Grades I-VIII. Similarly nonsignificant were the few differences found in the personality test scores of these pupils. Baker (7) obtained 9000 questions from 1400 elementary-school children. These questions revealed that children are interested in many topics at the same time and that they may be expected to manifest interest in these topics for several years. A study of children's heroes and ideals by Stoughton and Ray (97) showed that 72 percent of second-grade pupils' interests are associated with the immediate environment and only 25 percent relate to the remote environment. By the sixth grade these percentages have shifted to 42 and 52. Morton's (61) study of children's mathematical interests revealed the grade-by-grade shift of interest in aviation. A very extensive and very useful study of health interests of children in Grades I to XII was made by a staff committee in the Denver Public Schools. (24) Parents, teachers, and pupils were queried about health interests. The results of the study were then organized into a graded schedule for curriculum planning.

Anderson (5) found home-study assignments beneficial to eighth-grade pupils. Krum and Brown (52) called attention to the importance of "the process of change" in curriculum revision and then outlined criteria for evaluating the process. Herrick (42) developed four criteria for appraising procedures used to promote reading development; namely, (a) the criterion of defined goals, (b) the criterion of continuity, (c) the criterion of interrelationship, and (d) the criterion of two-dimensional evaluation. Graham (35) endeavored to find out whether teachers who use democratic methods develop democratic attitudes in their students. She concluded that typical teaching procedures, even tho used by superior teachers, do virtually nothing to develop democratic attitudes, but that there is experimental evidence to show that superior teachers do have a measure of success in establishing democratic attitudes thru the use of democratic methods.

Visual and Auditory Aids

Within the three-year period covered by this report, two professional societies published yearbooks on audio-visual aids; namely, The National Council for the Social Studies (40), and the National Council of Teachers of Mathematics (62).

Large-Scale Curriculum Projects

A definite trend of the times is large-scale curriculum projects sponsored by various types of agencies and carried forward thru the participation of cooperating schools in different parts of the country. Examples of such projects are: the Alfred P. Sloan Foundation study in applied

economics which has a "public schools" area (21, 68, 89) and a college area (30); the W. K. Kellogg Foundation project in health education, about which no published reports are as yet available; the Southern States Work Conference (94, 95); the American Council on Education project on intergroup relations; the curriculum program of the National Council of Teachers of English (92) which is designed as a nationwide study and aims to prepare materials in the areas of (a) literature and reading, (b) writing, (c) speech, and (d) listening; two recent yearbooks on the curriculum by the National Society for the Study of Education (63, 64); and the Horace Mann-Lincoln Institute of School Experimentation (57). The latter was organized in 1943 and, as now organized, supports a variety of efforts. Major attention so far has been centered on a series of studies relating to curriculum design. These studies encompass three basic problems: (a) the necessity for a better orientation to the conditions of our technological society (23), (b) the importance of increased recognition of the characteristics of child growth and development (46), and (c) the need for more balance, continuity, and unity in the school program (98). The institute program is seen to have four emphases: (a) the preparation of fundamental analyses basic to curriculum development, (b) field experimentation in associated schools, (c) staff and student research, and (d) publication and dissemination of findings.

II. The Secondary-School Curriculum

Some Factors Influencing the Curriculum

The curriculum is constantly subjected to many influences and controls. A number of these factors were reviewed by Bacon (6) who discussed their action on curriculum planning. Douglass (26) reviewed and summarized official and other agencies which affect the curriculum. Within the field of education, old ideas, new theories, persons, committees, professional organizations, and other separate and concerted efforts wield influence in various ways. One recent study called attention to the importance to curriculum advancement of competent persons in education and placed much responsibility on teacher-training institutions (81).

Outside the school many factors such as legal controls, minority groups, political agencies, business, and other various groups (6) are influential. Douglass (26) classified such agencies as follows: (a) federal authorities and influences, (b) state governmental authorities, (c) local authorities and influences, (d) nongovernmental educational agencies, and (e) pressure groups with special interests. In any complete consideration of the status of the curriculum these influences must be taken into account.

Legal Controls of the Curriculum

The freedom with which curriculum development may proceed varies from state to state, and there is much lack of uniformity. In a study of the legal controls exercised in forty-one states, Jones (48) found that

thirty-six state departments of education are authorized or directed by law to develop and prescribe courses of study to be used in junior and senior high schools. In thirty-three states the department of education is authorized or directed by law to prescribe the number of units for graduation from high school. Eleven states authorize uniform purchasing of textbooks, and in three states the constitution authorizes prescription of uniform textbooks. Accrediting agencies exercising some control over the curriculum of the senior high schools are maintained in twenty-nine states.

In nine states local boards of education have full control over courses in the senior high school, while in thirty states local boards exercise control over curriculum offerings subject to approval of the state department of education. Jones concluded that states exercise varying amounts of control either thru direct prescription by law or thru state agencies having legal control. Only a minority of states prescribe specific subjects by law, for example, only nineteen require instruction in health, sixteen have requirements relative to some aspect of the social studies, and twelve with respect to English. In general, powers given to state education departments are exercised sparingly.

Taylor (100) revealed that replies from twenty selected state departments of education indicate that considerable freedom is granted local districts in seventeen states. Massey (59) reported that only three states have specific enabling acts which permit operation of camps by boards of education. She also indicated that twenty states have laws providing for the operation of recreational programs and implied that camps could come under such provisions.

How Many Curriculums?

One extensive study involving 467 secondary schools thruout the United States explored the question of single or multiple curriculums (79). Of 161 schools participating in this particular aspect of the study, 47 percent offered a curriculum of common courses taken by all pupils, plus elective courses. Forty-three percent reported offering several curriculums for pupil choice, within each of which are prescribed courses and electives. The three curriculums most commonly offered were: (a) college preparatory, (b) general, and (c) commercial. However, analysis of graduation requirements within a number of different curriculums reported by the schools suggests that instead of a variety of curriculums there actually tends to be one common program of academic courses, plus some free electives and other prescribed courses in line with the title of the curriculum. In general, the curriculum offerings of smaller high schools, particularly those having an enrolment of less than 200 pupils, were more restricted than in larger schools. Of twenty leaders in the field of secondary education who participated in this phase of the study, eleven favored a curriculum of common courses plus electives, and seven favored several curriculums having prescribed and elective courses.

Common Curriculum Organization

Current educational theory tends to favor more progressive curriculum organization, but practice is limited largely to more traditional types. Alberty (1) stated that the curriculum has not kept pace with the new demands made upon it. However, he also indicated that there is a discernible trend from the subject-centered curriculum rooted in traditional values and subjectmatter to an experience curriculum based upon needs, interests, and abilities of adolescents. Spitznas (96) emphasized the desirability of apprehending the curriculum as a process rather than as a form. Romine reported eight of twenty experts as favoring the experience curriculum and seven as favoring the core curriculum (79). Regarding practice, however, Romine found that 61 percent of the responding schools indicated a curriculum composed of subjectmatter courses, and an additional 19 percent suggested that such courses were correlated in the curriculum. Only 7 percent claimed to have an experience curriculum.

Further evidence of traditional organization was supplied by investigations in Colorado, Iowa, New Jersey, and Wisconsin (65, 90, 10, 37). Taylor (100) found that of twenty states investigated only five recommended a unified curriculum and in two of these it was limited to the seventh and eighth grades. From a study of research on pupil progress, classification, and failure, Leonard (54) concluded that the high school has not yet adapted its curriculum to meet the needs of youth and that success in the secondary school is defined in terms of satisfactory completion of subject units.

There is some other evidence of correlation and combination of two or more subjects previously offered separately (31). Parker (74) reported that analysis of general education programs shows increasing attention to the use of something in addition to subjectmatter as a basis for planning synthesis of courses. Gruhn and Douglass (36), on the basis of extensive questionnaire and checklist surveys, visits to junior high schools, and correspondence with administrators, concluded that there is a trend in the junior high schools toward correlation, fusion, and integration. They also report the degree of current practice with respect to correlation, fusion, integration, large units, and core curriculum organization in the 380 junior high schools.

In 1947 reports from over 400 secondary schools indicated slightly increasing emphasis on correlation of subject courses, fused courses, broad fields, core curriculums and experience curriculums (79). It was also evident that some schools were not greatly concerned with these approaches and that a few others placed less emphasis upon them at that time than in the past.

Curriculum Organization and Educational Objectives

Of 161 secondary schools participating in one study, 40 percent indicated that courses of instruction are organized so as to make some contribution

to all ultimate curriculum objectives, with emphasis upon those to which the course is most closely related (79). Thirty-three percent indicated emphasis in organization so as to contribute to those objectives to which the courses were most closely related, with over-all articulation among courses to insure some attention to all objectives. Current theory explored in the same study revealed similar percentages of expert opinion favoring each of these two ideas.

Content of the Curriculum

As used herein the term content includes subjectmatter, activities, and experiences. Several studies indicated a great variety of titles assigned to courses offered in secondary schools. Romine (79) reported unpublished data indicating that courses having 183 different titles were offered in Colorado high schools in 1945-46. Shuey (90) found 217 different subjects in a study of large independent districts in Iowa, and Nonneman (65) found 141 in his study of consolidated school districts in the same state. These findings, together with analysis of courses available in secondary schools over the United States, clearly indicate the growth of the curriculum by addition and its present composition in terms of many courses having a variety of titles.

In one study curriculum experts advocated three important principles for use in the selection of activities and experiences to be included in the curriculum: (a) probable contribution to adult living, (b) suitability for meeting developmental and adjustment needs of youth, and (c) recognition by pupils as of value here and now (79). In an integrative study of literature in the field, Palm (73) concluded that one of the present trends in theory and practice is that of adapting the curriculum to meet youth needs.

Romine (79) found that almost 75 percent of 161 responding schools place primary interest in activities and experiences making a valuable contribution to adult living. Fifteen percent emphasized selection on the basis of meeting youth needs, and a few schools (5 percent) indicated that emphasis was placed upon important aspects of subject fields according to the judgment of the teacher. Increased attention to developmental and adjustment needs of youth was reported by the majority of over 400 secondary schools reporting on trends (79). Increasing emphasis on vocational education, and also on general education, was also reported by many of the schools. Vocational education tends to place emphasis upon general aspects and upon orientation, plus some more specialized courses. Few schools reported adaptation of general courses in English, mathematics, and science to vocational purposes.

The popularity of high-school subjects was investigated by Nonneman (65) and Shuey (90). The former found the ten most popular subjects among Iowa pupils to be Algebra I, English I, General Science, English II, World History, American History, Geometry, Typing I, and American

Literature. Shuey ascertained these to be as follows: English 9, American History, English 10, Algebra, General Science, English 11, Geology, Typing I, and Plane Geometry. Many of these subjects will be recognized as "required" in many high schools. Hence, it may be wondered as to the influence of graduation requirements on the results.

Barton (10) reported that in New Jersey two years of United States History are required by state law and that three years of history and social studies are usually required. He indicated that there is increased emphasis upon Problems of American Democracy and decreased emphasis upon World History. The status of the social studies in Wisconsin high schools is reported by Haas (37).

Graduation Requirements

Such requirements reveal something of the esteem with which various subjects are held. A high percentage of those usually required for high-school graduation are of an academic nature. Model requirements among the schools participating in one study were as follows: English, three units; mathematics, one unit; science, two units; social studies, two units; and health and physical education, one unit (79). An additional unit in each of English, mathematics, and science, and two units of foreign language were commonly required for graduation from college preparatory curriculums. Curriculums of the general type usually had fewer prescribed courses, while college preparatory and specific vocational curriculums had a higher percentage of prescribed requirements (79).

Neglect and Overemphasis

The consultants in Romine's study were asked to rate a number of topics on the degree of neglect or overemphasis which they believed each received in the secondary-school curriculums. Of fifty-two areas or topics rated as to neglect, the ten indicated as receiving least attention were as follows: application of mathematics to daily life; cultivation of scientific thinking; love, sex relationships and courtship; family relationships for boys; the Far East; Russia; labor-management relations; art appreciation; causes of depressions and wars; and creative self-expression in art (79, 80). Other items, indicated as almost as much neglected, include many related to human relationships, world understanding, and other problems of modern living.

Suggested as the ten most overemphasized of twenty-nine areas or topics were the following: athletic teams, war heroes to the neglect of leaders in peace; college preparatory courses in general; abstract mathematical problems lacking application to life; complex fractions; reading of classical literature; highly technical aspects of science; federal aspects of government to the neglect of local and state government; English background of America; and plant and animal classification (79, 80).

Responses from 161 schools did not completely substantiate expert

opinion with respect to neglect and overemphasis. However, many of the schools indicated little or no attention to some areas and topics rated as most neglected, and averages of school responses indicated only an intermediate (or slightly greater) amount of attention on most of these areas. Similarly, many schools indicated much or greater attention to topics rated by consultants as overemphasized. Athletic teams, for example, were rated as most overemphasized, and schools gave this item the highest average attention. Study of neglect and overemphasis indicates a need for reevaluation of curriculum content.

General Education

On the basis of responses of twenty leaders in the field of secondary education, Romine (79, 80) concluded that perhaps 60 to 65 percent of the curriculum should be devoted to general education. The data from more than 400 schools indicate a trend toward more attention to general education, altho not quite so pronounced as one toward vocational education (79).

Consumer Education

Briggs (15) surveyed 2915 high schools having a pupil enrolment of 300 or more. Responses were received from 725 of which 26 percent reported offering a separate course on consumer education. Of these, two-thirds of the courses were offered in the eleventh and twelfth grades. Consumer education offered as a part of one or more other courses was indicated by 87 percent of the respondents. The three leading courses making such a contribution were home economics, social studies, and business education. Harap and Mendenhall (39) indicated that during the war many schools formerly offering consumer education as a separate subject had dropped the course, altho nearly all schools offered some wartime consumer education in one form or another. Similar comments were made by Tonne (26).

Examination of syllabi, courses of study, and outlines in 150 school systems supported Briggs' conclusions by revealing that separate courses were largely concentrated in the eleventh and twelfth grades with the majority in the latter year (101). Such courses were reported as usually being elective and one semester in length. However, Turille (101) also reported that a recent survey of 500 schools indicates that two-thirds make no provision for consumer education. Only 12 percent offered separate courses. It appears that more schools claim to teach consumer education in regular courses, but Turille pointed out that "to claim to" and "to do" are not the same. He reported that in a four-state survey (Kansas, Missouri, Nebraska, and Oklahoma) fewer than 3 percent of the schools contacted taught consumer education either as a separate course or thru some form of integration. Turille (102) indicated increasing research in the field and suggested that further experimentation is necessary.

In Romine's study (79) the consultants indicated that much more emphasis was needed on consumer education in the curriculum. Of 161 schools responding, slightly more than one-third reported giving "much" attention to the subject and thirty-two schools reported "little" attention given to this topic. Teaching consumer education thru correlation with other subjects was advocated by Reich (76). Some examples of experimental programs in Florida, Kentucky, and Vermont were reported by Olson and Nutter (69), Seay (88, 89), and Morrill (60).

On the junior high-school level Gruhn and Douglass (36) found that consumer education was most frequently taught in the courses listed below, the percentages indicating junior high schools offering such education in each course:

<i>Courses</i>	<i>Percent</i>	<i>Courses</i>	<i>Percent</i>
Home economics	81	Social studies	34
Mathematics	72	Other courses	10
Commercial	57	Special courses in consumership	4

Aviation Education

Almost 50 percent of secondary-school pupils over the United States have access to aviation instruction. Sixteen states and the District of Columbia have formulated comprehensive high-school aviation programs (28). Sams (87) reported on the growth of aviation education in California and on the topics included in various courses. He also reported on the appropriation made by the state legislature in 1945 to aid aviation education. The California State Department of Education has a proposed course for high schools. A report on programs in fourteen high schools in New York revealed that industrial arts courses include flying model aircraft, ground training and glider construction, maintenance and repair of aircraft, and actual flight training (3). Aviation mathematics, meteorology, radio communication, and the history and social aspects of aviation are taught in related courses.

Safety Education

Widespread concern, at least in theory, for safety education of all types and in a variety of courses was indicated by several studies (2, 9, 11, 13, 56, 58, 75). Woodcock (109) revealed growth in the number of schools offering driver education from eight in 1939 to 350 in 1945. Lindsay (55) pointed out that the number of schools offering driver education in California had grown from a handful to 250, such courses yielding one semester credit or the instruction being integrated in other curriculum offerings. According to Key (50) ten or more states are taking action to accelerate driver education, and Weedon (106, 107, 108) revealed an increase in the number of colleges offering courses in driver education. Some fifty-nine institutions in twenty-two states were reported as making

available such courses for credit in 1947. In 1946 Garland (33) reported that more than 300 California high schools taught driver education to more than 20,000 pupils. Anderson (4) indicated that instruction in driving has increased 700 percent during the past decade and that 80 percent of the schools in Wisconsin offer courses in driver education.

Work Experience

The importance and value of work experience was revealed by Jacobson (17). In an extensive study Ivins (45) found that in forty-four states about 1860 work-experience programs were distributed as follows: diversified occupations, 564; cooperative distributive occupations, 545; other cooperative programs, 180; high-school camps, 279; community schools, 291. He reported a growth of about 50 percent in diversified occupations in nine states during the past decade (45). Many state departments of education indicated growing interest in work programs, and the large majority of these departments reported a slight or rapid growth in high-school work experience since the end of the war. A few state departments indicated a decline in the number of such programs.

In one study 55 percent of the consultants favored work experience for all pupils, but of 161 schools reporting only 9 percent made such provision for it in the curriculum (79). Thirty-four percent indicated no conscious concern for work experience, and 44 percent made it available only to those who wanted it and seemed better able to profit from such relatively nonacademic and less formal educative experiences. Of 143 other schools 34 percent reported very little or no attention to work experience (79).

A study of work experience in 136 school systems in thirty-seven states reported on many features of existing programs (104). Of ninety-one communities responding on the extent to which pupils participate, about 66 percent indicated that less than 100 pupils were involved. In almost 50 percent of the communities less than half of the pupils were released from school time for work experience. Brockman (16) reported in detail on existing programs in forty-five secondary schools in twenty-six states, revealing that work experience is being accepted in the curriculum but suggesting that it does not yet enjoy too much respectability.

Mental Hygiene in the Curriculum

There is evidence of a growing tendency to teach mental hygiene in regular courses, such as general education, vocational guidance, orientation, social living, and courses of similar titles. A slight increase in emphasis over the past several years on such courses was evidenced by the annual reports submitted by Colorado high schools. Breinan (14) pointed out ways in which social-studies courses may contribute to mental hygiene, and Smith (93) reported on two basic courses developed in high school for children appearing to have emotional disturbances. One of these

included work in English, social studies, and guidance, and interesting progress was reported.

III. Intercultural Education and Education for International Understanding on all Levels

A wealth of literature relating to intercultural education is being developed but little of it can be classified as formal research. The urgent need for better international understanding and better intergroup understanding in our own country was highlighted during World War II and has gained momentum since the close of the war. Interest thus generated led to a variety of activities in schools and with adult groups.

Intergroup understanding and cooperation has assumed a role of considerable importance in social and citizenship education. At the international level it is being spearheaded by the United Nations Educational, Scientific and Cultural Organization (17). In our own country the emphasis is being fostered by various groups which are giving special concern to it. Two departments of the National Education Association, the Department of Elementary School Principals (27) and the National Council for the Social Studies (99), have issued recent yearbooks on the subject. Phi Delta Kappa has created a special committee (44) to give guidance to efforts which seek to construct peace in the minds of men. The American Council on Education, with the aid of funds granted by the National Conference of Christians and Jews, is sponsoring a college (22) and a public-schools study in intergroup relations. Reports of public-school projects, such as *The Story of the Springfield (Massachusetts) Plan* (19) will be appearing in larger numbers in the future.

Responses from state departments of education to a questionnaire sent out by Warren (105) reveal that: (a) state departments may direct the study of intercultural education, (b) state departmental officials believe in the adaptation of present courses, and (c) there is an increasing interest in intercultural education. From a visitation to seven city school systems, Brameld (12) reported that (a) teachers are not trained before service for intercultural education, (b) well-developed plans for citywide programs of intercultural education are lacking, and (c) progress is being made toward improving programs of intercultural education. The United States Office of Education also reported a lack of information on the part of teachers about minority groups and intergroup relationships (103).

On the basis of replies from 123 teachers, Baker (8) reported that those educational institutions located in metropolitan areas have better opportunities for training teachers in service in a realistic way by reason of community resources of minority group life and of speakers. Citron (20), in summarizing 220 articles, reported a wide variety of opinion, materials, and methods for intercultural education. Giles (34) reported the existence of 120 national, thirty-five state or regional, and 175 local

organizations at work in the field of intergroup education. Ojemann (67) summarized a series of articles and concluded that superior results follow training young people in the analytic approach, altho they learned much thru analysis of their cultural environment. King (51) analyzed the program of intercultural education in the Cleveland schools. Robson (78) interpreted a program for parent participation in the department of Spanish at the University of Chicago. In an experiment on changing attitudes by means of intercultural education, Russell and Robertson (86) found that more change could be effected at the junior high-school level if parents' attitudes did not interfere. For example, there was a greater change in attitudes toward Negroes than in attitudes toward other groups. Teachers' attitudes were also found to be important.

Johnston (47) reported greatly increased interest in international relations as evidenced by the increasing number of curriculum workshops in this field. Likewise, the literature in the field, as summarized and classified by Dossick (25) is indicative of increased concern. The various approaches to international amity and stability are, however, characterized as being at variance. Jones described some outstanding new college offerings and curriculums. Slonaker (91) reported that the need for a Junior World Conference is growing out of the increasing interest and comprehension of international problems. Joyal (49) found increased emphasis on Latin America, Far East, Russia, global geography, and intercultural relations.

The participation of the Music Educators National Conference in international intercultural relations includes a study of Latin American musicians and their work, the exchange of teachers, the encouragement of Latin American music education (53). Oakes (66) pointed out ways in which science instruction may constitute a superior and effective approach and contributes to international understanding. He listed important organizations at work in this field.

IV. Appraisal of the Research Reviewed

During the war years curriculum research necessarily suffered curtailment. The end of the war brought a revival of interest and activities in curriculum revision, but the teacher shortage has undoubtedly checked some of this work. Most of the projects which have gotten under way since the close of the war have not yet progressed far enough to produce published reports. For these reasons the quantity of careful, fundamental research available for this review was somewhat limited.

Of the research reviewed, many studies were based upon the questionnaire or checklist technic; thus the results are subject to the limitations customarily associated with this type of study. In some cases two or more studies investigated the same areas, items, or problems. Definitions were not always in agreement; thus caution should be exercised in making comparisons between results obtained in such studies.

In general it appears that curriculum practice has not kept pace with theory, altho some progress has been made. Increasing attention in the curriculum to activities and problems of modern living is evident, but these usually are dealt with within a curriculum more typically conservative than progressive in organization.

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CHAPTER III

Methods and Materials for Childhood Education (thru Grade VI)

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THIS chapter summarizes studies that were published during the calendar years 1945, 1946, and 1947, and that were concerned with methods of teaching and teaching materials for preschool, kindergarten, and elementary grades I thru VI. For a treatment of the three-year period immediately preceding 1945 the reader is referred to the June 1945 issue of the REVIEW. The areas treated in the present chapter were dealt with in that issue under the chapter headings *Methods of Teaching* and *Auditory and Visual Education*.

The body of general literature on methods of teaching available for the three years under consideration was substantial and, as noted in the June 1945 report, this literature showed a tendency to cite the findings of research and the summaries of investigations. Altho this three-year period covered the end of World War II, there seems to have been a decrease in the quantity of materials discussing the implications of the armed services educational program. The special commission of the American Council on Education (32) published its report on this topic in 1947. There may have been a tendency to await and accept this statement as definitive.

Some general research dealing with grouping, departmentalization, and "progressive education" appears. There was also research dealing with specific technics and materials. It is significant, however, to note the increased emphasis on such topics as the democratic method, group dynamics, and mental hygiene in the classroom.

Together with these emphases on child development and group relationships there have been in a few general publications attempts to unify and synthesize the curriculum experiences provided for boys and girls. Examples of such attempts can be seen in the published volumes resulting from the research program of the Horace Mann-Lincoln Institute of School Experimentation (43, 85). Mursell (61) has devised a series of six psychological principles of teaching. Huggett and Millard (41) dealt with the psychological foundation of instruction and practice, and treated, in separate chapters, the major curriculum areas.

Preschool and Kindergarten

Early childhood education again received generous treatment in the literature and was the subject of a yearbook of the National Society for the Study of Education (66). In this volume Anderson treated the theory of childhood education, and Updegraff and others summarized the research on the curriculum in that area. The Educational Policies Commission (63)

reported that "research and our experience attest the value of nursery school and the kindergarten and of correlative programs in parent education." Heltibridle (37) traced the historical development of the kindergarten program during its period of transition from one characterized by a formal program to that with which we are familiar today. Redfield (71) investigated the importance of home influences on the preschool child. Herr (38) concluded that pre-first-grade training is an important factor in success in learning to read among Spanish-American children. She believed that her data justify the presentation of a pre-first-grade reading readiness program to children below the normal age of school entrance. Allen (2) found that beginning first-grade children need a period of orientation that provides for the child self-chosen activities and a socialized environment. She did not, however, draw any inference for the kindergarten program from her study. Andrus (5) described the physical, social, and other needs of preschool children and described the daily activities of children participating in a nursery-school program.

The Background of Method

The conflict between "progressive" and "traditional" practices has not yet been resolved. Buswell (20) analyzed four problems of method underlying newer instructional procedures. He took the position that learning needs to be organized and related, sequential, and associated with the time factor. He showed the need of scientific inquiry. Weber (91) in a reply to critics of "progressive" methods listed nine points on which the psychologists of the leading schools agree. He cited research findings to indicate that the net result of the practices evolving from the "progressive" point of view is good.

Hildreth (40) made a critical appraisal of the policy of continuous promotion. She stated that in recent years the newer emphasis on the child as the center of the educational process and fuller appreciation of the disastrous consequences of failure from a mental hygiene standpoint resulted in an increase in promotion rates. Yet if children lacking the prerequisites are required to meet inflexible achievement standards, failure results and promotion signifies progress in name only. Hildreth listed as implications of her appraisal the need for (a) individualized teaching of basic skills, (b) wider range of materials, (c) grouping of children within the grade, (d) a functional school library, (e) a variety of reading materials, (f) nontraditional instructional materials, (g) an understanding of pupils, (h) small classes, (i) grouping for special purposes, and (j) avoidance of a narrow remedial drill type of teaching. She concluded that promoting children continuously should not set up insuperable obstacles to teaching; on the contrary it could become the stimulus for rethinking education in terms of the individual pupil.

In an attempt to discover the effect of departmentalized teaching Rouse (74) studied the fourth and fifth grades of two groups of schools, twenty

with departmental and twenty with nondepartmental organization. By observation, interview, and questionnaire she found only fourteen statistically significant differences. These two groups of schools were reported as being not so different in actual practice as the theories underlying the various types of organization seem to indicate. The two groups were practically equal in the scope of their curriculum but the nondepartmental groups were more in accord with presentday theories of education. The available research on departmentalization was summarized by Seegers (78). He listed thirteen references on the topic and pointed out the limitations of educational procedures in schools in which there is departmentalization. He stressed the effectiveness of integrated teaching. He decided that departmental teaching lends itself to efficient teaching of isolated skills and that it may be superior to fragmentary, unimaginative teaching by a single teacher. He concluded that departmentalization is not a particularly good plan of organization for teaching.

The controversy between the planned and the unplanned curriculum still continued. Herrick (39) concluded that there was no such thing as an unplanned curriculum. He stressed the importance of teacher-pupil planning and outlined the basic concepts of the experience curriculum. Curriculum planning is an essential part of the learning process itself. The 1945 yearbook of the Department of Supervision and Curriculum Development (26) stressed the need for the democratic type of planning in the classroom. Examples of good practice were given.

From a study of practices found in better schools Mort (58) developed four over-all pertinent characteristics related to instruction, curriculum, and teacher personnel. Wingo (93) pointed out that to an increasing degree much of the work of the elementary school is being carried on by a type of classroom organization variously called "unit of work," "project," "activity," "center of interest," or some other name. He indicated the danger inherent in the "unit of work" of substituting an equally undesirable, but new, atomism for the old. He listed five criteria for the development of units.

Children's Interests

During the period covered by this issue, Emily V. Baker (12) reported her research on children's questions. She collected 9280 questions from 1402 children in Grades III to VI in laboratory and public schools. She found that girls tend to ask more questions than boys, that subjectmatter interests are in varying degrees common to both girls and boys, and common to all grades from three to six, that many interests run concurrently, that interest in a given area may be expected to continue for several years, and that children are interested in the origins and causes of natural and social phenomena. Children want help in interpreting the facts and situations they observe and they want help in understanding the school situation. Stewart (82) found that children prefer assignments that involve the use

of multiple textbooks, group practice, and self-direction in finding materials in books. She studied the direct opinions of 546 children in Grades IV, V, and VI as revealed on questionnaires. She recommended that teachers plan assignments that utilize the above mentioned technics.

Lindsey (49) studied children's records of their use of time in school as a means of evaluating the programs of the elementary school. She directed the children of ten classrooms in five elementary schools in the keeping of records of how they actually used their time. She concluded that the technic is a helpful one and recommended that teachers use it, even with one child at a time. Lindsey also discovered that time is needed in the school day for teachers to plan with and for children. Tschechtelin (88) experimented with self-appraisal of children in fourteen schools of Indiana.

Sherer (79) screened a list of 3665 questions on all phases of aviation asked by 1150 children in kindergarten, Grades I, II, and III in order to find out what primary-grade children want to know about the quantitative aspects of aviation when they are free to ask whatever they please. He also studied (a) questions about aviation asked by children during school activities while studying aviation and (b) narrative accounts of children's questions, comments, and activities during extensive classroom studies of aviation. Drill (27) in an effort to get at the science interests of children studied 47,330 reports of free discussion periods of children from thirty-eight communities in New York State and critically analyzed 19,211 which pertained to "topics which are or might be included in an elementary science program." She found that an average of 41 percent of all the content for all the grades included an interest in science and that boys were more likely to mention science topics than girls. Children were found to be more interested in individual plans, animals, machines, or units of the physical environment than they were in societies or organisms in relation to their environment or in the stars, moon, sun, and planets. Children were more interested in compounds and mixtures than they were in elements; and children showed some evidence of having been indoctrinated with superstitions, particularly concerning the moon and stars and animals.

Readiness

Readiness as it pertains to the development of children had some further attention in the fields of reading and mathematics. Moser (59) conducted one such investigation on the second-grade level in an attempt to re-evaluate the relative contributions of maturation and environment. He chose prealgorismic growth of the fractional concept when instruction emphasized meaning and the structure of the number system. He concluded that (a) at the present time teachers do not know what to do about readiness; (b) a functional approach to the problem of readiness is indicated; (c) the teacher should provide a highly simplified version of the basic

features of the environment to which the individual must eventually adjust; (d) there is experimental justification for presymbolic activities and they, together with manipulative activities, are attractive to children from seven to ten; (e) there is a need for a reconsideration of the grade placement program of the Committee of Seven; (f) simultaneous instruction with halves and fourths tends to promote transfer of training.

In the field of art education, Landis (48) developed a theory of "meaningful method" as opposed to a "directing" or "free-expression" or an "eclectic" method. In Landis' "meaningful" method an attempt is made to develop in the child a self-control instead of control from without. Thus, for Landis, art becomes a unifying process, an objectification process, a communication process, and a pervasive element in the life of the individual. O'Donnell (67), drawing upon both *a priori* and experimental sources covering a period of twenty-five years, presented an attempt to establish the thesis that the creative dance is an essential educational feature of a democratic society. She presented materials and methods by which all primary-grade teachers may raise "the quality and frequency of instruction in creative dance." Lists of dramatic and imitative activities were included in the study. Only those selected by children and observed as being satisfying to children were included. Bibliographies of music for the dance and for dance accompaniment, including records, were also given and were so keyed that teachers would readily select music related to or suitable for typical movements, designs, and compositions. The further use of informal dramatic activities in the intermediate grades was recommended by Merker (53).

The use of pictures, dramatizations, pantomimes, constructive activities, excursions, and free reading are recommended by Sister Mary Carmelita Kus (46) for use in vocabulary development in an activity program.

Pupil Activities

Jensen (42) surveyed available literature and analyzed the data from questionnaires returned by seventy elementary-school principals in Los Angeles in an effort to ascertain the status and probable value of activities supplemental to the curriculum. She found that training in thrift was the most frequent activity and student councils the least frequent. Music activities were rated by the principals as being of greatest value to children. No activities at all were offered in Grades I, II, and III in schools with enrolments of 100-299 or 1100-1399 (the smallest and largest studied). All schools reported activities for Grades IV, V, VI. Fewer activities were found in the largest schools and the greatest number of activities were reported by schools with enrolments of 500-699. In Grades IV, V, and VI safety patrols were the most frequent pupil activity. Assemblies ranked second. In the lower grades, only the assembly appeared with enough frequency to compare with the activities in the upper grades.

In a study by Otto (70) the largest variety of pupil activities engaged in within the classroom was found in medium-sized schools. Otto also found that the use of the lunch program as a laboratory related to health instruction is gaining acceptance and that community projects are being used in a large number of schools. Otto stated that these projects reveal an encouraging trend even tho a majority of those most frequently reported were those of lesser educational value.

Personal Development and Group Membership

Both the general literature and research during the three-year period covered by this issue indicate that important implications for teaching methods are coming out of the field of mental hygiene. Frank (31) stated that mental hygiene is not confined to the field of psychiatry but has a place in the classroom. He contrasted the older type of classroom with more recent programs and practices wherein teachers encourage socializing, wherein playing may contribute to learning, and wherein group activities are emphasized. The December 1946 issue of the REVIEW (84) devoted a brief section to mental health in the elementary-school classroom. Snyder (81) summarized the experimental and survey studies dealing with the mental hygiene of school children that had appeared in the literature since 1936. Brewington (17) outlined a mental hygiene program for elementary schools. Waller (90), as a result of a survey of five elementary schools of Washington, D. C., recommended that (a) teachers make a study of mental hygiene and modern guidance technics, (b) schools keep more complete and permanent cumulative record files, and (c) teachers become more familiar with tests of personality. Hartsig (36) found, from a study of the guidance services in 208 elementary schools that (a) there appears to be a need for improvement in utilizing recorded data, (b) most of the schools reporting indicated that teachers need help in observing children and in interpreting their observations, and (c) more effective ways of interpreting the educational program to parents in groups and thru individual conferences seem to be needed. The Commission on Teacher Education (3) published the results of a cooperative, three-year project which presented technics for study of child development at the various grade levels.

Selected research dealing with a variety of problems related to grouping of children was reported by Smith and Dolio (80). They stated that the basis for grouping should involve more than the IQ or achievement. Grouping has come to have as its objective the placement of each individual within a group in which he will work better, where he will have status and a sense of belonging, where his mental health will be safeguarded and improved. Some of the main points from the selected research are given in a running account.

The National Council for the Social Studies (62) reported current practices and trends in social education for young children. Chapter III,

as well as others, gave the findings of research. Thruout the publication the emphasis was placed upon the problems of children in groups. The American Council on Education (4) thru its project of Intergroup Education in Cooperating Schools issued a mimeographed sociometric work guide. Olson (69) reported how a sociometric study and an analysis of the situational factors in the social structure were made of a third grade. He listed the treatment recommended for the group and described what one teacher did. He made a follow-up study after a period of six months. Little improvement in social relationships was found. The children were then regrouped; and more improvement in social relations resulted. Olson recommended that numerous experiments in grouping using sociometric and other appraisals be made. The reader is referred to a compilation by Bronfenbrenner (18) of a series of articles from the journal, *Sociometry*. The sociogram and preference questionnaire were used by Flotow (30) in studying social relationships of school children. A sociometric test was given to 135 children in Grades IV to VIII. Each child was to name the three children with whom he preferred to play, work, and sit. The score given to each child was the number of choices he received from others. The scores ranged from 0-28. Most children received fewer than ten. Six percent received three or less, and 12 percent scored fifteen or more. The test results were plotted in a sociogram. Flotow concluded that the sociometric test can be used to give the teacher a clearer view of the entire problem of social relationships within the classroom and that it would point up for the teacher the direct relationship between everyday teaching problems and the social adjustments of children. A study of sociometric patterns in the elementary school was also made by Bedoian (13). Harris (35) made a study of some socially unadjusted children in the elementary grades. Morrison (56) used sociometric tests to discover that children tend to choose friends who resemble themselves as to chronological age.

The available research concerning the social and personal integration of nine-, ten-, and eleven-year-old children was brought together by Blair (15). He suggested principles of guidance based upon the distinctive aspects of development during these years and indicated problems requiring further study. This is an important and significant summary.

In Tschechtelin's study (88) 1542 elementary children in 140 classes in fourteen schools rated themselves and one another. Tschechtelin also obtained ratings of the children from 485 teachers, getting a total of 409,536 ratings. It was found that boys seem to underrate themselves but rate themselves increasingly higher thruout the grades. Individual girls in all grades rated themselves higher than they were rated by the boys in their classes, higher than by the girls in their classes and higher than by teachers. Questions were raised by Tschechtelin as to whether boys become more secure, or more defensive and compensatory as they progress thru the grades. Questions were raised as to whether girls are better adjusted than boys or only think themselves better, or are overcompensated.

sating. Haggard (34) in an attempt to indicate some basic relations between learning and adaptive behavior in general, appraised certain facts and theories of learning. He took the position that learning involves the modification of the individual's "drive states" or motivational pattern and not his response patterns *per se*. He concluded that the learning of desirable response patterns will follow when desirable motivational patterns are learned. Arisman (7) from a survey and analysis of the literature found that there is abundant evidence of the need for concern about the high incidence of emotional problems and that it is essential that the schools recognize and develop more adequate curriculums which will meet the desires, tensions, drives, and interests of children. He described the motives for classroom behavior in terms of the relationship between the child and his work, the child and his teacher, the child and other children and the group, and the relationship between external forces and the classroom behavior.

A method for evaluating the growth in attitudes of elementary children was studied by Erro (29). An evaluation device, based upon 500 classroom observations, was constructed thru the cooperative effort of teachers. These observations were generalized and, after each generalization, were listed examples of behavior characteristic of the specific aspect that could be expected on each level: primary, intermediate, and upper elementary. Erro recommended that evaluation technics should be constructed by those who are to use them. Brueckner (19) discussed the findings of a study of attitudes on war-related issues of children in Grades IV to XII. Since the extent of agreements and disagreements by pupils on the forty issues was found to differ little from grade to grade, he raised such questions as: Are there factors outside school that contribute more than instruction to the development of attitudes? Do children's attitudes reflect those of parents? To what extent do radio, movie, reading matter that is accessible, and other factors determine attitudes? Robertson (73) concluded that the school must work closely with parents and other adults who are influential in shaping behavior.

In a general treatise on democratic education Schneideman (77) described in detail the procedures she used in instruction to democratize the work in her classroom. Stone (83) from a study of pupil learning activities concluded that experience involved in conducting meetings and understanding the principles of democracy should play a prominent part in programs of democratic citizenship education. He found thirty activities which he classified as "minimum essentials." The activity rated lowest in effectiveness by teachers and leaders was to "determine and enforce penalties for violations of group regulations." Sanford (76) in considering the differential effect of dominance and autocracy on child development reasoned that authority should be of such a kind and degree that the child can accept it and make it his own. As the child's authorities become more and more internalized, external pressures are gradually

relaxed. Adams (1) also studied the behavior of children in democratic and autocratic social climates. He found that it is possible to establish autocratic and democratic social climates in the classroom when the teachers know the characteristics of these two social climates. The behavior of those operating in the democratic climates was found superior in six points. The behavior of those operating in the autocratic climates was found superior in two points.

The Department of Elementary School Principals (65) issued a yearbook that contains descriptive material about methods of intercultural education used in elementary schools. Murphy (60) studied the contribution of the elementary school to American intergroup education. She found that no state has a well-financed, organized program in intergroup education and that present intergroup programs are not adequate to the great need that exists.

Studies were made of ways and means of getting a closer relationship between the school and the home and community. The Twenty-fourth Yearbook of the Department of Elementary School Principals (64) reported many illustrations of ways to bring this about. Conner (22) studied the effect of parent-teacher cooperation in the study and planning of educational activities upon the progress of pupils in school. In three elementary schools the parents of fourth-, fifth-, and sixth-grade pupils were invited to participate in two-hour weekly conferences with teachers and children, in observation of pupils in action, and in discussion of teachers' plans and of problems of parents. Control schools were set up. The matched-pair technic was used. The experimental groups made significant academic gains. Pupils improved in their personal-social status. Provisions in the home for educative experiences increased. Experimental classrooms were, at the close of the experiment, rated superior to the controls in quality of educative environment and in quality of pupil participation. D'Evelyn (24) made some practical suggestions for individual parent-teacher conferences. Coulter (23) analyzed the parent-teacher conferences held in one school system for one semester. Coulter recommended that teachers should be chosen who are willing to spend time on parent-teacher conferences, who have a knowledge of child development, and who can effectively deal with people; and public schools should set up in-service education programs in the technics of interviewing.

Teaching Materials: Audio-Visual, Library, and Others

Caswell (21) described four types of aids to instruction that reflect the scientific movement in education: (a) research bureaus, (b) provision of written and construction materials, (c) audio-visual aids, and (d) standardized tests.

The bulk of the research on teaching materials that appeared in the three-year period under consideration dealt with reading materials. Altho this chapter is not concerned with research limited to a specific subject

field, a few such studies that have general significance are reviewed here. Edgerton (28) studied three widely used children's encyclopedias to determine just how difficult they were to read. He recommended that a greater amount of vocabulary control and a higher percentage of common and already familiar words be used. He found that pictures are valuable aids to comprehension and that there should be more use made of action-type picture panels and pictographic maps and charts. Rinsland (72) studied over 200,000 papers containing the writings of children thruout the United States and determined the frequency of the words used therein. The papers were from the first eight grades. They included such types as personal letters, expositions, original stories, poems, examination papers, conversation reports, projects, and others. Children use a surprisingly large number of different words on each grade level. The list as compiled contains the 14,571 words occurring three or more times in any one grade. Both the raw frequency with which the word occurs in each grade and the total frequency for all grades are given and a symbol is used to indicate the frequency group into which the word falls.

Rue (75) issued in 1946 the first supplement to her subject index to books for primary grades which was last revised and published in 1943. This 1946 supplement indexed, under subject headings, more than 225 titles published during 1942-1946. Levels of difficulty and usability for children and teachers are indicated. Morse (57) presented an annotated list of selected books for children classified according to age levels. In 1946, the Association for Childhood Education published a list of children's books costing fifty cents or less (9); its 1948 list of approved books for young children includes those costing seventy-five cents or less (10). The Association (8) also revised its bibliography of books for young children. This list contained annotations and suggested age-level interests. Trager (87) issued a list of intercultural books for children edited from twenty-two bibliographies. Twelve criteria were set up for making the selection. Betzner (14) listed the recordings of children's literature available thru the American Library Association and other sources. She pointed out that the school, together with radio, film, phonograph records, television, "comics," and the theater provide media for presenting literature to children.

The vocabulary of selected preprimers was analyzed by Johnson (44). Certain aspects of second-grade readers were studied by Grady (33). A study of foreign nationalities in selected third-grade readers was made by Womack (95). Lucas (52) analyzed the fable, fairy and folk tale, mythical, and legendary content of selected third-grade readers. Louis (51) made a similar study of selected sixth-grade readers. Dalton (25) analyzed the rural life treatment given in 210 books in forty reading series. His study centered around the treatment of rural problems, rural topics, and literary stories about rural life. He found that rural life in all its aspects is not adequately treated. Bond (16) surveyed the literature relating to supple-

mentary reading material for third- and fourth-grade science. Whitney (92) studied artists and their works used in the intermediate grades.

An analysis of sources of materials for education for world citizenship was made by Townsend (86). The place of the American folk ballad in children's song literature was investigated by Sister Mary Bernard Kan-napel (45). She traced the history of the ballad, its educational significance, the place of the ballad in the school program and listed criteria for the selection of folk songs. She recommended the inclusion of more American folk music in the curriculum. Lammers (47) selected stories from American Indian folklore suitable for use with elementary-school children. She outlined the history of the folk tale and the importance of its use in units of work. Olson and Fletcher (68) reported on the Sloan Foundation Experiment.

Recent experimental investigations and research studies reported in the field of educational motion pictures were brought together by Long (50). He included investigations dealing with (a) the use of and effectiveness of educational films in teaching special subjects, (b) their effectiveness at various grade levels, (c) their use in developing attitudes and understandings, (d) standards of evaluation of educational films, (e) the comparative effectiveness of different methods in their use, (f) the grade, range, and economy of time of educational films, and (g) historical and documentary investigations with educational films. Anglin (6) developed a guide for the use of films in the teaching of science in the intermediate grades. The Association for Childhood Education (11) devoted its first 1947 service bulletin to the use of audio-visual aids with children. The United States Office of Education jointly with the Radio Manufacturers Association (89) issued a set of basic standards for the selection and utilization of school sound systems.

The implications of the Armed Services Educational Programs that seem to pertain to instruction in the elementary school are chiefly those concerning the teaching of reading and the use of audio-visual aids. As a result of a survey of all the major studies of training-aids conducted by the armed forces, Miles and Spain (54) listed eleven implications for civilian education.

Millard (55) also made a study of the development and use of audio-visual aids in the training program of the United States Armed Forces. Witty (94) concluded that the Armed Forces Educational Program was characterized by: (a) definite objectives, (b) careful study and proper classification, (c) use of functional materials, (d) small-sized classes, (e) wide application of carefully developed visual aids, (f) hygienic conditions insuring a sense of security, comfort, and general well-being, and (g) thoroly trained and enthusiastic instructors.

Summary

It is difficult to integrate the findings of research on teaching methods and materials. Much of the research was diverse and scattered. However, certain features do stand out. The implications for teaching inherent in continuous promotion seem not to be fully realized by administrators and teachers. The issue of departmental *versus* nondepartmental teaching has not yet been completely settled altho evidence on the elementary level is piling up in favor of the nondepartmental type or a modification thereof. Much attention was given to learning activities: creative, cocurriculum, and child-chosen. Children's interests were studied both as a means of curriculum planning and as a basis for insights into child behavior. Much concern was shown for the improvement of mental hygiene in the classroom. The personality adjustment of children held a prominent place in the research. The investigation of group dynamics is increasing. Correspondingly, sociometric technics seem to have been more frequently used by teachers who were becoming aware of the social relationships in their classrooms. The social climates of democracy and of autocracy in the classroom were further explored and attention was given to the development of attitudes by children. School-home and school-community relationships were studied and the importance of teacher-parent cooperation was indicated. Audio-visual and library materials were prepared and appraised as were other materials used by teachers in developing units of work.

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CHAPTER IV

Curriculum: Methods and Materials (above Grade VI)

FREDERICK H. BAIR and WILLIAM E. YOUNG

THIS chapter summarizes the research reports and discussions based on research findings dealing with curriculum methods and materials in the secondary school and college during the calendar years 1945, 1946, and 1947. Perhaps the most significant research in this area during the three-year period was reported by the American Council on Education thru its Commission on Implications of Armed Services Programs (10, 13, 21, 32, 36). Much attention was given also to methods and materials in general education, intercultural education, international education, and work experience. Moreover, there was considerable emphasis on the use of various auditory and visual aids. While probably not more than a score of scientific investigations on methods were published, other works such as the Report of the Harvard Committee (24) and bulletins of national associations increased the number of studies that merit careful consideration here.

The Background of Method

Symposiums on the curriculum were furnished by the Eighth Yearbook of the John Dewey Society, edited by Caswell (9) and a volume edited by Douglass (15). Studebaker (48) outlined the probable course of development in secondary education as based on an examination of present trends.

Annotated bibliographies on the research as well as the general literature on the curriculum were presented regularly in the *School Review*; for example, see the January 1947 issue (27). Drag (16) studied curriculum laboratories in the United States, indicated their present distribution, and suggested technics of organization, development, and operation of curriculum laboratories.

Certain inadequacies in curriculum research were set forth by Mackenzie (30). Two characteristics were pointed out: (a) secondary curriculum studies have been undertaken without relating them to a well-reasoned theory as to the nature of the curriculum; and (b) research has often failed to attend to "the total constellation of factors operating" in any situation. He concluded that "the curriculum has not been studied in the total school and community context." It was partly so studied by Albrecht (2) who investigated the results of the first five years of the Texas inquiry into secondary education. Her survey included thirteen topics such as mental hygiene, curriculum readjustments, and improved methods.

Armed Services Training Programs and Audio-visual Aids

What can the schools and colleges learn from methods of education used by the armed forces? Chambers (10) reviewed some twenty studies and summarized the contributions as follows: (a) effective procedures of classi-

fying and grouping personnel pointing to possibilities of improving aptitude testing, guidance, and student aid; (b) clear and purposeful objectives; (c) authentic, up-to-date, and functional methods and materials; (d) a practical curriculum of immediate value; (e) motivated instruction; (f) an integrated curriculum in effective series; (f) the production, distribution, and use of visual and aural aids on an extensive scale.

Goodman (21) asserted that the significant characteristic of armed services training was change. Specific need was the sole criterion for the inclusion of courses or content. Realistic training required adequate facilities and aids. Davis (13) reported in some detail concerning selection and classification procedures in the armed services training program, and Witty (52) described the teaching of the three R's.

Foreign language teaching (32) came in for intensive study, leading to caution against forcing too far analogies between wartime conditions and the ordinary conditions of language learning in the peace-time secondary school and college. Of especial interest here is the emphasis on area studies, and the technics found effective. Agard and others (1) made recommendations for the improvement of foreign-language instruction in both high school and college founded on the report of the Commission on Trends in Education of the Modern Language Association of America.

According to Spaulding and Marvin (47) the construction of textbooks could be improved if publishers would make use of the experiences of the armed forces. The Armed Forces Institute attempted to build self-teaching texts so that learners of varying degrees of intelligence would be able to follow every word, line, paragraph, and illustration, with no outside interpretation or supplementation. One of the important contributions of the military educators was the effective use of multisensory, and particularly of visual materials. Hoban (26) and Miles and Spain (36) concluded that visual and auditory aids were essential to the achievement of the goals of civilian education. From the vantage point of over a quarter of a century of observation, Freeman (19) reviewed the serious obstacles to effective use of audio-visual materials.

In an investigation of the use of motion pictures and film-strips in the schools of the Southern Association of Colleges and Secondary Schools McCallum (33) found that they were used in more than 46 percent of the schools and in all subjects. Certain basic instructional practices were recommended: (a) motion pictures and film-strips should be used as a part of the regular class work; (b) the information should contribute directly to the unit of work; (c) the material should be adapted to the interests and capacities of the group; (d) the general topic should be discussed prior to the film showing; (e) not more than two films, and these related, should be shown during one period. Six over-all recommendations were made as a result of the study. One of these was to the effect that the complete development of audio-visual programs in all schools depends upon organized preservice and inservice education, which will prepare teachers

and administrators in the proper usage of films. Ettinger (17) evaluated the available visual aids in business education and investigated the extent of their use in New York City. A large number of useful aids were found to be available but used to an extremely limited degree. The status of audio-visual education in city school systems was summarized in a *Research Bulletin* of the National Education Association (40) in 1946.

Radio was discussed in detail by Levenson (29) who traced the growth, use, and possibilities of radio in schools. The evaluation of a project of school broadcasts was carried out by Woelfel and Tyler (53).

Special Postwar Problems

Hess (25) summarized the minimum requirements for a high-school diploma in all states, the District of Columbia, and Alaska. He gave information about the use of the Tests of General Educational Development of the United States Armed Forces Institute in the granting of equivalent certificates. Allen (3) analyzed the problems of high schools in meeting the specific needs of veterans. Comprehensive studies of curriculum adjustments in secondary education necessitated by the impact of the war and social change were presented in bulletins of the National Association of Secondary-School Principals (38, 39).

There is little evidence that atomic energy developments have, as yet, had much direct influence on the curriculum. A comprehensive study unit on the atomic age, edited by Hand (22), was published as a University of Illinois research bulletin in 1946. An opinion poll of school administrators on what emphases concerning the atomic age are desirable in the high school was reported (37). It is doubtful if the true concern of the schools with this problem was adequately reflected by the amount of published research during this period. There were, of course, a great many general discussions of the atomic problem in the literature.

General Education: the Core Curriculum

The Report of the Harvard Committee (24) has been chiefly studied and criticized for its proposals for a general education in school and college to serve as a unifying and liberating force based on a common knowledge, familiarity, and feeling. The Report placed first the improvement of teaching. Flexibility in the choice and conduct of courses was supported. Evidence was cited of the success of the tutorial system with gifted college students, altho its success has not extended to the teaching of "most of the physical sciences." The present textbook was adjudged inadequate—particularly so for the teaching of adults who want insight rather than information. A need for "radical research into the principles of comprehension" was indicated. Evidence was cited to show that sound-motion pictures can increase greatly both clarity and interest of presentation. McConnell (34) interpreted the experience of the University of Minnesota as indicating that students profited more from a combination of group instruc-

tion and individual counseling than from either one alone. He declared that the outcomes of general education are functions of teachers' methods of instruction and students' methods of learning. Bobbitt (6) criticized the Harvard Report as calling for a single universal verbal program of general education. He recommended apprentice living in the ten areas of human endeavor which constitute the duties of laymen.

Wiley and others (50) studied secondary education in New York State, and recommended extensions in counseling services, work experience programs, occupational adjustment services, recreation, and community educational planning. Urging flexibility in content and procedure, the report stated that there are local and regional demands that carry validity. Macklin (31) appraised the Virginia program for improving the secondary education of Negroes. Among his seventeen recommendations were: (a) more individual and group guidance of high-school and college students, and (b) increased emphasis on the all-round rather than merely academic development of learners. Tilley (49) presented evidence in favor of a combination of academic with industrial-education activities to achieve the aims of general education. Hanna (23) investigated the feasibility of service-to-community projects in general education for four-year high schools. Brooks (8) studied ways of handling instructional problems which arise in new-type courses in secondary schools.

Perry (43) surveyed the development and provisions of the special two-year program for "students of poor academic promise" at San Diego State College. The four factors giving greatest aid toward the adjustment of such students were: (a) their association with their peers, (b) the special course content, (c) the instructional methods, and (d) the counseling. The practical life-problem approach and the use of student-learning activities were proving their effectiveness.

Work Experience

Brockman (7) made a critical analysis of practices of secondary schools in cooperative work-experience programs. Schools conducting successful programs had a favorable attitude. Work experience provided a superior method of utilizing the basic principles of learning. Many secondary schools and junior colleges, however, were not providing cooperative programs. Phelps (45) surveyed summer work experiences of ninth- and tenth-grade students and supported work experience as good educational procedure. The dissertation of Clemens (12) was an investigation of the work opportunities of twelve-year-olds. Questions were raised about the early induction of children into work experience. There was one report (41) of on-the-job education in rural communities which considered programs sponsored by the public schools and colleges. Everson (18) described a program which required a year of vocational training for all secondary-school students. Christensen (11) considered the transfer of training from work experience and urged that the schools aid pupils in the forming of

generalizations based on such experience. Dillon (14) summarized the benefits of programs of regularly scheduled instructional periods together with school-supervised periods of work.

Interests, Needs, and Activities of Students

Gates (20) investigated the civic competence of high-school seniors. He found a "distinct connection" between academic ability in subjectmatter areas dealing with civic information and willingness to accept civic responsibilities, a finding at variance with results reported by Wilson (51). Bloom (5) had college students "think aloud" as they attacked problems in different fields of subjectmatter. He analyzed their problem-solving difficulties to obtain leads for instruction and remediation. He tried out a plan of remedial work with good results. Baar (4) obtained evidence relating to the relative superiority of three general methods of enrichment suitable for junior high-school science. Park (42) had high-school and college students report what motivating technics had been successfully used by their teachers in elementary and secondary school. LaFollette (28) surveyed the practices of secondary schools in discovering and utilizing the leisure-time interests of beginning students. He listed eight successful methods of discovery and adduced evidence to support school utilization of leisure-time interests. New procedures such as "stay-at-home" camp programs were described. He reported the obstacles to school attention to leisure-time interests as: (a) lack of time, (b) poor cooperation between teachers, and (c) little correlation of work between departments.

Merrick and Seyfert (35) recommended school publications as a valuable source of extra-school experiences for boys and girls. Smith (46) showed that the socio-economic status of students conditions their participation in school activities. Peters (44) investigated social acceptance among children from Grade II to Grade X. The outstanding factor affecting the social acceptance of children appeared to be the emotional climate of the home. She recommended a closer alliance of the school and the total living of the child, and more research in each school system as a guide to change in program and procedures.

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CHAPTER V

Curriculum: Change and Improvement

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CURRENT literature on the curriculum includes numerous general or specific recommendations for change. There is, also, renewed attention to the methods by which change can be brought about. Whereas earlier attention to methods for change tended to center on steps in the revision of courses of study or sequential stages in the organization of curriculum improvement programs, more recent efforts have focused on defining the process of change and exploring or studying some aspect of it. Curriculum change is now viewed as a much more complex problem than the predominant curriculum literature of the 1920's or 1930's made it appear to be.

Curriculum discussions often reveal dissatisfaction with results of earlier efforts at change and indicate the urgency for making changes speedily. Criticism is frequently made that altho philosophy has been changed and new objectives have been enumerated, and even a course of study developed, classroom practices have been modified but little. The apparent growth of general social lag and maladjustment has stimulated many to seek ways of speeding curriculum improvement. Some have viewed existing curriculums as indications of social lag and unbalance. For example, the absence of relationships between the learning experiences in many schools and the problems of presentday living is viewed by some as indicating a needed change in the curriculum. Possibly the basic principles governing change of the curriculum are the same as those controlling change in other areas of life.

However, while curriculum change may be just one aspect of the total problem of social change, there are other far-reaching implications of the idea of curriculum change. The curriculum, depending on its nature, may be an important means for bringing about wider social change. It may even be viewed as a possible means for retarding change, for maintaining the status quo, for facilitating adjustment to new conditions or for leading in the definition of new goals and developing the means for their attainment. The interaction of the school curriculum and social change is something which should be understood more clearly by educators.

Altho the research bearing upon principles underlying the process of curriculum change is still limited in extent, the character of recent attention given to the problem, the importance of the problem, and the promising character of some of the studies under way, suggest that review and analysis at this time may help to clarify this dynamic aspect of the curriculum field.

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The Meaning of Curriculum Change

Curriculum workers hold differing concepts of what constitutes the curriculum, and consequently they differ widely as to what constitutes the problem of changing it. In general, those who define the curriculum as the experiences which learners have under the direction of the school believe that changing the curriculum involves changing the factors which shape or influence the learners' experiences. These factors are many and varied. Some are within the school program itself and others are outside. However, there is general recognition that any change in the curriculum involves changes in people. Only as their values, understandings, and skills are changed will the curriculum be modified. Even changes in materials in the school necessitate changes in people. It is from those holding these views that most of the current consideration of the problem is coming.

Those who view curriculum change as a process of modifying the course of study have given little attention recently to the process of change. Thus, while the literature on the curriculum includes numerous suggestions for new courses in general education at the college level, little or no attention is given to the method by which the courses were developed or to the means by which classroom practices can be changed. Occasionally reference is made to such devices as committee work in organizing a new course or cooperative teaching by two or more staff members who represent differing areas of specialization.

There are some who distinguish between broad curriculum policy formation and the immediate tasks of curriculum planning on the local level. Briggs (8) has proposed a commission operating on a regional or national basis which would popularize and develop a basic philosophy of secondary education, propose general curriculums and produce materials that schools can use. Morrison (32) has shown how a state agency could make occupational surveys and do broad curriculum planning for proposed community institutes in New York State.

However, much of the literature describing curriculum improvement practices in state- or system-wide programs has tended to emphasize the importance of the individual school unit or of the participation of all directly concerned with the change. Studies by Devilbiss (13) and Tippet (44) represent examples of this. In a study evaluating aspects of the Alabama state program for curriculum improvement, Nelson (35) stressed the local participation aspects.

Still others, especially the research workers in the Metropolitan School Study Council, have been concerned, among other things, with the community factors which make for change. Pierce (38) has studied the relation between controllable community characteristics and program modification and pointed out possible ways of improving education thru improving the community and increasing community understanding. Mort (33) the research director of the Council, in collaboration with Vincent, has produced an instrument for measuring the adaptability of school systems.

Curriculum Study Agencies Emphasizing Change

As noted in previous summaries of curriculum research, there has been a growing tendency toward commissions or large group projects in the curriculum field. Recent efforts of such groups reveal great emphasis on the methods and means for bringing about curriculum improvement. While the diversity and size of their efforts make it impractical to summarize the work of each, the major approaches which have been used can be noted.

The Commission on Teacher Education of the American Council on Education (1, 2, 39) had as a major function the implementation of what was already known relative to teacher education, and the discovery of means by which groups concerned with both preservice and inservice education could improve the programs with which they are working. The Sloan Foundation projects (36) in Florida, Kentucky, and Vermont, while placing great emphasis on the use of locally-prepared, community-oriented materials, have shown that changes in the school program itself can be made and that these in turn can influence the quality of living in the community served. Somewhat similarly the Southern Regional Studies reported by Ivey (18) have sought to bring about curriculum change thru the introduction of new materials. The California Council on Improvement of Instruction (20) found gains in pupil interest and in the organization of subjectmatter without loss in student achievement thru the use of current materials in seventy-two English, social studies, and science classes. The Southern Association Study (19) in its work with thirty-three secondary schools emphasized the cooperative use of the scientific method in approaching educational problems. Individual schools were aided in using sound methods of studying their own problems and devising their own curriculum adjustment. Use was made of summer conferences or workshops, preschool conferences, regional conferences, and consultant help. Bossing (6) reports a study in six Minnesota schools which started long-term curriculum programs in 1942. While a logically organized program for curriculum study governed the work of the first four years, there was considerable variation from school to school and students, teachers, and lay citizens participated broadly in the program. The Cooperative Study in Education (3) thruout its final report indicates the importance of attention to method and procedure of working if curriculum change is to result. Several other studies now under way are also giving attention to methods for bringing about change.

Process of Change

Miel (30) has made a most useful analysis of the process of change and the necessity for more adequate control of this process. She suggests three characteristics for an adequate process: the guarantee of security for participants, the guarantee of individual and group growth, and the guarantee of accomplishment. Her study also reveals the importance of certain aspects of the process or factors in the process which are subject to manipulation

more readily than others at the local community level. These are: (a) the character of the motivations of the persons on whom change depends, (b) the conditions for effective group endeavor, (c) the extent of social invention, and (d) the amount and quality of leadership present.

Interest in the means of change has been very high, especially as it can be furthered thru the group processes. While there have been few research studies published as yet, groups such as the Horace Mann-Lincoln Institute of School Experimentation (16, 31) are studying some of the problems involved. In recent publications this group has provided guides to study and experimentation in cooperative planning, giving particular attention to its purposes and uses, what is known and what needs to be known, and how study can be furthered. Miel (28) has reported how one group studied and analyzed its own working procedures.

There has been a great deal of activity in related fields which has tremendous implications for curriculum change. Organizations such as the Research Center for Group Dynamics at the Massachusetts Institute of Technology, thru the writings of Lewin (21), Lippitt (23), and others are adding significantly to the understanding of group processes and leadership functions as they relate to social change. The Commission of Community Interrelations of the American Jewish Congress and the Classroom Laboratory at the University of Chicago also have studies and experiments under way. Industrial studies, as summarized by Mayo (26) give much support relative to the importance of group goals and group spirit. Steinzor (42) has developed a measure of the motivation or extent of participants in a group discussion. Lippitt, Bradford, and Benne (24) have presented the value of sociodrama in the clarification of leader and group roles as a starting point for effective group functioning. Lewin (21) has summarized studies on the relative merits of individual and group procedures in securing change. He gives the explanation that in certain procedures such as individual instruction the force field which corresponds to the dependence of the individual on a valued standard acts as a resistance to change. When, however, one succeeds in securing changes in group standards, the same force field will tend to facilitate changing the individual. Also, the individual's conduct tends to be stabilized on the new group level. These ideas relative to the importance of the group to which the individual belongs might well be extended to the total environment. It is probable that insufficient attention has been given to the potential educative effect of the environment in inservice education for curriculum improvement. At the present time almost entire reliance is placed on direct instruction. It seems reasonable to suppose that changing equipment, materials, and the total atmosphere might have a much more profound influence.

An interesting related development is to be found in the efforts of the Association for Supervision and Curriculum Development (34) to plan a national conference in such a way as to help its members increase their understanding and skill relative to group procedures. A report of the con-

ference presents an evaluation of this device. In the survey field, Lincoln, Nebraska, has proceeded with widespread participation to study its own program (22). Emphasis has been placed on the making of modifications in program as a result of the staff activity.

Another approach to the problem of change has been made thru studies of obstacles and barriers. Miel (29) studied 440 barriers to improved instruction listed by fifty students in her classes. Several types of analyses of the data were made and possibilities for the use of this device with any curriculum group to discover obstructions were considered. Rouse (41) has analyzed reasons for failure to make changes in connection with the Texas curriculum program. Some of her reasons are worthy of further study. Bradford (7) working in a related field has pointed out bases of resistance to reeducation in government administration.

Studies of the process of curriculum change have not been as intensive and precise as might be desired, but have focused on the participation of all concerned with the process. While any organization of these materials is a bit arbitrary, it seems possible to group them on the basis of primary participants: teachers, lay citizens, and pupils. Each of these will be considered in the sections which follow.

Teacher Participation

Brock (9) in a study of the administrative procedures and practices employed in the development of the core curriculum in a group of selected high schools revealed, among other factors, the importance of cooperative planning by administrators, teachers, parents, and pupils; the significance of intensive inservice education; the value of continued close contact with the community, and the central place of leadership by the principal.

Wetherington (45) has analyzed the way in which North Carolina initiated a state program for inservice education thru the use of workshops. Diederick and Van Til (14) have summarized the principles and practices of the workshop movement. Both reports stress the motivational and action value of starting with problems and needs of participants. Diederick and Van Til stress individual action in respect to the participants' own project and democratic group action as additional important characteristics. Carter (10) in a summary of 100 opinions relative to teachers' institutes obtained thru questionnaire and interview, reveals the institute to be a formalized, ineffective procedure when it is imposed upon teachers without their participation in its direction. He also reveals the importance of the opinion poll as a means of democratizing and vitalizing institutes.

Community Participation

There has been growing attention to the character of the relations between school and community. However, according to Preston and Mulholland (40) most attention has been given to vitalizing the curriculum thru use of community resources or the development of action opportunities in

relation to community improvement. Bates (5) has reported on the use of community surveys as a basis for curriculum change. Direct work with adults thru the school has been reported successful. Many other examples of materials prepared for lay citizens may be given, as for example, the 101 practices described by 250 teachers in connection with the work of the Metropolitan School Study Council (27).

Storen (43) has made a thoro analysis of the present forms of lay participation, has related this to current trends in curriculum planning, and has presented problems and suggestions regarding lay activity in curriculum planning. This study has a wealth of suggestions for further investigation in the area.

Howard and Lippitt (17), approaching the problem from the standpoint of group dynamics, have made suggestions which have importance for curriculum workers.

Student Participation

The participation of students in curriculum change is frequently advocated, usually thru teacher-student planning. Studies of the process are not common. Hoppe (15) summarized the literature relative to the theory of student participation in curriculum improvement, and has studied student participation in 110 secondary schools. He reported on areas of participation, technics, methods of selecting participants, and problems and limitations.

Another approach to the problem is found in Baker's (4) study of children's questions and their implications for the curriculum. On the basis of 9000 questions from 1400 elementary-school children, she made suggestions for a problem approach in teacher education institutions. The study implies, however, the use of current pupil interests as a basis for the curriculum. Such interests change with each new group of children. The implication of Baker's study is related to Olson's (37) proposal of self-selection as a principle of curriculum method. He has described the educational applications of the ideas now current relative to self-selection of food by infants.

Research Needs

Obviously much further research is necessary if problems of curriculum change are to be fully understood, but even more important new research technics are probably required. Charters (11) contrasted the approach in which a research staff carries on the studies, with that in which each faculty member, interested in self-improvement, receives the stimulation and assistance of the research staff. Stephens College has operated on this latter plan since 1921. Cunningham and Miel (12), Lippitt (23), and Mackenzie (25) have indicated the need for cooperative action research if many of the problems of curriculum change are to be better understood and controlled. Many of the current uses of action research in industry,

government, and community affairs hold significant promise for curriculum workers. Current investigations in the areas of group dynamics and human relations are closely related to those problems of curriculum modification which involve changes in people and which are receiving current emphasis.

Cunningham and Miel (12) have listed some of the problems of curriculum change on which research is needed: (a) getting initial interest in curriculum change, (b) improving attitudes toward change, (c) dealing with the phenomenon of crystallization, (d) managing the helps and hindrances to curriculum change which teachers recognize, (e) using leadership to further curriculum change, (f) using the expert to further curriculum change, (g) organizing for curriculum development, (h) improving the quality of cooperative planning, (i) improving communication, (j) improving human relations, (k) securing appropriate materials of all types, and (l) technics for developing a common philosophy among all people concerned. Undoubtedly this list could be extended. Obviously many factors are interacting to shape the curriculum. If changing the curriculum involves changing these many factors or at least modifying their interaction, curriculum change becomes a very complex problem. The idea that change of the curriculum can be controlled and directed is being approached in new ways, and the ultimate extent or speed of change is not yet clear. However, the means for effectively and rapidly improving the curriculum is one of the most significant areas for current investigation.

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CHAPTER VI

Curriculum: Library Resources

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Introduction

PART II of the Forty-Second Yearbook of the National Society for the Study of Education, entitled *The Library in General Education*, is after five years one of the most useful discussions of the values and functions of the library now available. More recently Mishoff and Foster (40) issued a useful bulletin of public library statistics which gave the status of public library service thruout the United States. Fargo (19) described the school library, the bases for its administrative and financial support, and some of the approved methods of functioning. Cole (11) edited *Library Literature*, an annotated index to 1946 publications concerning the library profession. *Library Literature* is an annual publication, which, because of the war, was suspended for three years, 1943-1945. It is planned soon to make up these arrears in the indexing of books, theses, periodicals, and pamphlets dealing with the library. Library research for 1942, 1943, and 1944 was surveyed in the June 1945 issue of the REVIEW.

General Character of the Research

Scientific research is a relatively new development in the library field, having been postponed by World War I and interrupted by World War II. There are only a few well-established graduate library schools. Cole (12) made a study of the graduate theses accepted by library schools in the United States from July 1938 to June 1945. Cataloging and classification was the field of investigation most frequently chosen by library school students. Descriptive bibliography ranked second. The largest number of theses were written in these two fields. The areas of government, administration, interpretation, and evaluation included but a small number of the theses. These were the fields of library research which Cole judged to be of prime importance, yet they are most seriously in need of factual and theoretical literature. Cole also classified 727 theses written since 1928. The years of greatest research were those immediately preceding our entry into World War II, 1938-1941. The peak year was 1940.

The library literature for 1945, 1946, and 1947 contained little of formal research, but there were selective and annotated bibliographies, service studies on a local and regional basis, and a few important surveys.

Surveys, Standards, and Evaluation

The National Opinion Research Center (42) studied the functioning of the public library as a personal service organization and as a civic institution. The survey was conducted in seventeen cities, and 2114 persons (all

over twenty-one years of age) were interviewed. Two out of every five adults reported reading as a favorite diversion but only 25 percent made use of libraries. Those interviewed knew little about the services which public libraries rendered other than those of lending books.

Orton and others (45) studied the adequacy of New York City's public library system. Among their many recommendations was one to the effect that economy dictated that the public libraries should do all the library work for schools, except in those areas where a branch library would not receive sufficient community use to warrant its maintenance. This recommendation is questionable in view of successful experience with school libraries in New York City and thruout the rest of the country. It appears to need substantiation by research in the light of modern educational objectives. The New York State Education Department (43) reported in 1946 that 1,500,000 citizens of New York State had no public library available for local use, and that another 2,000,000 were served by libraries with inadequate book collections and with inadequate facilities for rendering essential library services. In another study of the New York State Education Department, Beck (6) surveyed the library services which the people wanted. A similar study of library adult-education aims was carried out by Spence and O'Brien (46).

Grady (22) inquired into the services of libraries of teacher-training institutions. Altho demonstration-school libraries were found to be superior in general to the average school library, they did not meet his suggested standards. The American Association of Teachers Colleges (1) developed qualitative standards for teachers college libraries, and made suggestions for their evaluation.

The American Library Association (3) evolved standards for school libraries as to staff, resources, quarters, and administrative plans, in relation to the program of the school. Douglas (15) set forth recommendations for the school library with respect to personnel, book selection procedures, and physical facilities.

Administration, Teaching, and Related Services

Fargo (19) drew from many studies and pooled the results of successful experience to state the problems of library organization, administration, instruction, and servicing. Her description of modern educational patterns and library aims is clear, helpful, and compact. Batchelder (5) analyzed the obstacles to satisfactory library services for rural children. She outlined the programs for rural library service in several of the states. Dodd (14) described the library service in the graded elementary and secondary schools in the rural towns of three counties in Minnesota. Hayner (27) predicted the regional organization of school libraries. Lamb (33) studied the services of the secondary-school library in library-study halls. Heller (28) described the book selection practices in one secondary school.

Fenner's publication (20) provided practical answers to many problems

of library management in the elementary school. Walraven and Hall-Quest (49) issued a compendium of information on the use of the elementary-school library in teaching. Fargo (18) described a method of initiating and conducting learning activities which center in or depend upon the library. Brown (10) issued a manual on the use of the library in which she assembled much helpful information for students and teachers. Henne and Pritchard (29) furnished an account of a cooperative program planned by a teacher of home economics and a librarian.

Wilson and Tauber (51) conducted a comprehensive study of the university library, its organization, administration, and program. Lyle and others (37) published a book on the administration of the college library, which for the first time gave data on comparable institutions. Swank (47) investigated the organization of library material in respect to its worth and practicability for research in English literature. He studied the card catalog and shelf classification at the University of Chicago library to determine their value in locating research material. Swank found that published bibliographies or combinations of such bibliographies produced better results than the library catalog and classification. Swank's study suggested that some of the money now spent on cataloging be used to purchase additional bibliographic materials.

Bibliographies

Eaton (16) prepared an annotated list of books for boys and girls of prereading age thru high-school ages. Eaton's purpose was to aid boys and girls in building personal libraries. Howard and Lundeen (30) issued a list of books for retarded readers. Reading levels covered were grades one thru seven. Interest levels included grades one thru twelve. They also reported a list of books for teachers of children retarded in reading. Brooks (9) edited a bulletin which reported the results of an analysis of children's books at the University of Chicago. The analysis was made on the basis of the developmental interests of children. The books were tested at the Graduate Library School and in the laboratory schools of the Department of Education.

Bedinger (7) put forth suggestions for the selection of books in science for the small library. The suggestions were drawn from experience and not from scientific investigation.

Trager (48) examined twenty-two lists of children's books concerned with intercultural education. These books ranged in interest levels from preschool thru junior high school. Criteria were studied, and finally twelve specific criteria were used in selecting the books. Of the 253 titles examined, seventy-one were accepted and listed. Since the 253 titles did not include all the books in the twenty-two lists, the reader has no way of knowing which books (other than the seventy-one accepted) were examined or which books were rejected. The American Council on Education (2) issued a bibliography on intercultural education, entitled "Reading Ladders for Human

Relations." The methods of book selection were explained. Eight areas of human living were explored, and books listed under each. The "reading ladders" were intended primarily for the schools that cooperated in the project.

Reading and Reading Guidance

No attempt is made here to review any large amount of the research in reading for 1945, 1946, and 1947. A few references of special significance to librarians, particularly school librarians, are included.

For a number of years Gray (23, 24, 25, 26) has issued in February a summary of reading investigations completed during the twelve months ending the previous June 30. These were published in the *Journal of Educational Research*. Gray's 1945 summary (23) should be of special interest to librarians, since it listed studies of library coverage and others in the hygiene of reading.

Leary (34) summarized some of the results of reading research. Findings pertinent to the library were: (a) Library card holders in an ordinary town with a library comprised less than 30 percent of the population. Half of the card holders were children. (b) Expenditures for the library and reading tended to lag behind all others. (c) Pupils in the elementary schools showed "a discouraging lack of familiarity with good current books." (d) The comprehension level of persons twenty to forty years of age was placed at slightly above seventh grade.

Arbuthnot (4) surveyed the reading interests of children from two to fourteen years of age. She covered every type of book other than textbooks. Criteria were set forth for all types. Lucas (36) analyzed thirty third-grade readers to find out what fables, fairy tales, folk tales, myths, and legends were included from 1887-1946. Maguire (38) did much the same for thirty fifth-grade readers, 1890-1945. Norvell (44) published a preliminary report of a twelve-year study of children's reading interests. The sources of data were 1,590,000 reports from more than 50,000 pupils and 625 teachers in all types of communities in New York State. Norvell showed how pupils' choices were affected by factors such as age, maturity, sex, and intelligence, and stated the implications of the study for classroom practice. Elder (17) reported an investigation of the relationship of the school library to the remedial reading program, based on the replies of 101 school librarians to a questionnaire. Her report described the criteria for selecting materials for slow readers with varying handicaps and disabilities.

Link and Hopf (35) had 235 interviewers canvass 4000 young people and adults to ascertain their reading and book-buying habits. Interviews took place in May and June of 1945 and there were a few check interviews. About 70 percent of all book reading was done by 21 percent of the population. The number of years of formal education was mostly closely associated with amount of reading. Socio-economic status came second.

They concluded that best-seller lists were not reliable indexes of the number of people who read the books.

Kircher (31) compiled a list of books suitable for children in connection with a project conducted for the Children's Library at the Child Center of the Catholic University of America. The books were annotated with respect to their values as character building agents. This project was designed to supplement the research of Moore (41) into the need for children's books in the application of bibliotherapy to the problems of childhood. Moore reported his study of the effects of reading on conduct.

Berelson (8) collected data from 600 residents of Erie County, Ohio, to determine political differences between library users and nonusers. He found that his subjects selected their reading to lend support to their opinions rather than to modify or change their predispositions. His conclusion was that this condition seriously limited the psychological and social effects of reading.

Martin (39) made use of several studies on the use of magazines to make suggestions concerning periodicals for school libraries. In this latest edition, she included for the first time a consideration of magazines for elementary schools and a summary of contemporary studies of magazines for children of elementary-school age.

Audio-Visual Aids

Glavin (21) pointed out that the educational film is now recognized as an important tool for public libraries in the recording and transmitting of knowledge and ideas. Glavin presented information to assist public librarians in the establishment of film programs. His recommendations should also be helpful to school and college librarians.

Kohberger (32) reported an experiment in radio story-telling carried out by the Carnegie Library for the primary grades in the public schools of Pittsburgh.

Education for Librarianship

Wheeler (50) studied the education of librarians for all types of libraries. He stressed the need for greater consideration of inservice education in view of changing needs. Danton (13) inquired into many phases of education for librarianship and recommended that the curriculum be differentiated for the type of library which the prospective librarian planned to serve.

General Implications

The question of the administration of the school library has again been raised. This issue was apparently settled by a number of studies of which the report of the Joint Committee of the National Education Association and the American Library Association is representative. (See June 1942 REVIEW.)

New studies should be made to give interpretation to the needs, purposes, and legal structure of the school library in the light of modern educational objectives. The financial support of public and school libraries has remained tenuous. Research is necessary to settle the question of adequate means of support.

There is the issue of what unique services the school library can best perform. There are phases of reading instruction which might be more suitably handled in the school library than in the classroom. Experimentation and reports of practice are needed in the coordination of the auditory-visual aids program with the library services.

The library schools are in a period of rapid and profound change. Curriculums are being revised. New courses and new emphases in old ones are being formulated. Research should be carried on to guarantee that these changes be genuinely related to the objectives of American education.

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